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# Chemical Information Resources Handbook

## Second Edition

## Toxics Integration Information Series

REPRODUCED BY
NATIONAL TECHNICAL
INFORMATION SERVICE
U.S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA. 22161

# CHEMICAL INFORMATION RESOURCE HANDBOOK

Second Edition

Produced Under EPA Contract No. 68-01-5951
For the Chemical Information and Analysis Group
Chemical Coordination Staff
Office of Pesticides and Toxic Substances

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## OTHER PUBLICATIONS IN THE TOXICS INTEGRATION POLICY SERIES:

State Administrative Models for Toxic Substances Management (July 1980) EPA-560/13-80-018; PB81-14373

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EPA Chemical Activities Status Report - 2nd Edition (December 1980) EPA-560/13-80-040(a), PB81-176414; EPA-13-80-040(b), PB81-176422

EPA Chemical Activities Status Report - 3rd Edition (June 1982) EPA-560/TIIS-82-002a,-002b

Directory of Federal Coordinating Groups for Toxic Substances - 1st Edition (June 1979), 2nd Edition (March 1980) EPA-560/13-80-008; PB80-177314

Federal Activities in Toxic Substances (May 1980) EPA-560/13-80-015, Revised, May 1983; PB-157638

Perspectives on the Top 50 Production Volume Chemicals - (July 1980) EPA-560/13-80-27; PB80-221682

Perspectives on State-EPA Grant Activities (September 1980) EPA-560/13-80-037; PB82-229105

Chemical Selection Methods: An Annotated Bibliography (November 1980) EPA-560/TIIS-80-001; PB81-241481

TSCA Status Report for Existing Chemicals - Volume 1, Issue 2 (July 1980) EPA-560/13-80-033

TSCA Status Report for Existing Chemicals - Volume 2, Issue 2 (July 1981) EPA-560/TIIS-81-004

Chemical Information Resources Handbook (January 1981)
EPA-560/TIIS-81-002; PB82-225657

Measuring and Comparing the Cost-Effectiveness of EPA Regulatory Efforts to Control Toxics-Related Health Risks, Vol. 1: Feasibility Study (June 1981)
EPA-560/TIIS-82-007

Toxic Substances Control Act Grants to States (July 1981)
EPA-560/TIIS-81-003; PB81-232969

TSCA Chemicals in Commerce Inventory: Regional and States Perspectives (August 1981) EPA-560/TIIS-81-005

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State Integration Toxics Management: 18 Profiles (December 1982) EPA-560/TIIS - 81-005-1

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EPA 560/TIIS-83-002

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# INTRODUCTION

The first edition of the Chemical Information Resource Handbook was developed for presentation at 35 nationwide orientation sessions in chemical information resources. The Environmental Protection Agency (EPA) sponsored these sessions to promote an understanding of the resources available in the ubiquitous field of chemical information. The sessions, as does this handbook, focused on automated information systems because these resources can sharply reduce the time and expense of identifying and obtaining most types of chemical information. Moreover, the management of toxic and hazardous substances requires comprehensive access to timely chemical information from a broad spectrum of sources. This second edition is an updated version which includes several additional data bases and updated information on several of the data bases. The information is recent as of September, 1982.

This handbook describes most of the more important chemical information resources available and accessible through government and private organizations. The handbook provides a framework for searching and retrieving information on chemical toxicology, environmental effects, spill responses, disposal methods, ambient air and water concentrations, control technologies, and existing regulations.

We have included both the currently available and proposed chemical information resources so that the handbook user can begin using the existing data bases and can also be aware of some of the new sources of information that will be available in the future.

Federal agencies have broad information-gathering powers under the regulatory statutes -- the Toxic Substances Control Act (TSCA), the Consumer Product Safety Act, the Federal Insecticide, Fungicide, and Rodenticide Act, and the Food, Drug, and Cosmetic Act, among others. Particularly under TSCA, there is a need to obtain substantial amounts of up-to-date information quickly. Therefore, it is important for this information-gathering process to be efficient and for the information to be available to everyone needing it. As a result, several of the described resources provide data that have been collected by the government.

An important factor to consider when using any chemical information resource, automated or not, is the quality of the data. Data retrieved from a computer is no more valid than the printed resource, or other source, from which it was obtained. The use of automated chemical information resources gives the researcher a slight advantage, because the volume of data available, within the research time alloted, increases dramatically. Thus, if the results of a search on one system are replicated by several others, the validity of the data is not suspect. However, the most reliable method of assessing the validity of the data is the use of personal and professional judgement and an evaluation, where possible, of the design and materials used in the study that yielded the data.

# HOW TO USE THIS HANDBOOK

This handbook of chemical information resources is designed to meet the needs of persons concerned with chemical substances. It gives the chemical information user a guide to bibliographic search systems, computerized data systems, chemical lists, and other relevant publications.

The first step in using this handbook is to identify the types of data/information required. Exhibit 1 is a matrix which cross-references environmental functions with typical types of data required for their performance. The user should also assess the form of information he wishes to use: bibliographic information, computerized data, lists of chemicals, or publications containing information and data. The content and form of data or information needed will determine which resources are compatible with the requirements.

Once the type of data needed has been determined, the user should refer to the Matrix of Chemical Information Resources. This matrix relates content and form of information to resources that can meet the needs. Use of this matrix will result in a list of information resources to be considered. The information searcher should then refer to the directory and read the descriptions of the candidate resources that should be considered.

Based on these descriptions, the user should be able to identify the resources that will meet the needs of any specific situation. For each chemical information resource, the handbook provides:

- description of each data system;
- scope -- data content of system;
- file structure;
- access/availability;
- output form and format.

A practical plan for use of these resources can be developed based on a selective review of each resource description and sample output.

### Exhibit 1
### FUNCTIONAL TOXIC CHEMICAL INFORMATION NEEDS

| FUNCTION | CHEMICAL IDENTITY | PROPERTIES | PRODUCT USES | TOXICOLOGY | ENVIRONMENTAL EFFECTS | SPILL RESPONSE | DISPOSAL METHOD | AIR DATA | WATER DATA | CONTROL TECHNOLOGY | REGULATIONS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ENVIRONMENTAL RISK ASSESSMENT | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| REGULATORY OPTIONS EVALUATION | ● | ● | ● | ● | ● |  | ● | ● | ● | ● | ● |
| ENFORCEMENT CLAIM DEVELOPMENT | ● | ● |  | ● | ● |  |  |  |  | ● | ● |
| SPILL CLEANUP | ● | ● | ● | ● | ● | ● | ● |  | ● | ● | ● |
| UNCONTROLLED LANDFILL MITIGATION | ● | ● | ● |  | ● |  | ● |  | ● | ● | ● |

## Exhibit 2
## MATRIX OFCHEMICAL INFORMATION RESOURCES

| | | MODEL OF OUTPUT | | | | | PRESENT NETWORK | | | | COVERAGE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | D | E | | | | | | | | | | | | | | | | |
| | SEARCH BY CAS NUMBER | BIBLIOGRAPHIC SEARCH | COMPUTERIZED QUANTITATIVE | ABSTRACTS | LIST OF REFERRALS | PUBLICATION | NLM | CIS | ORBIT | DIALOG | INDUSTRIES | PRODUCERS | CHEMICAL/PHYSICAL PROPERTIES | USE DATA | TOXICOLOGY | ENVIRONMENTAL EFFECTS | SPILL RESPONSE | DISPOSAL METHODS | AIR DATA | WATER DATA | CONTROL TECHNOLOGY | REGULATIONS |
| AEROS | | | ● | | | ● | | | | | | | ● | ● | | | | | ● | | | ●[4] |
| AGLINE | | ● | ● | | | | | | ● | | ● | ● | ● | ● | | | | | | | | ● |
| AGRICOLA | ● | ● | | ●[1] | | | | | ● | ● | ● | ● | ● | ● | | | | ● | | | ● | ● |
| AGRIS | | ● | | ● | | | | | | | ● | ● | | ● | ● | ● | | | | | | |
| APILIT | | ● | | ● | | | | | ● | | ● | | ● | ● | | | | | | | | |
| APIPAT | ● | ● | | | | | | | ● | | ● | ● | | ● | | | | | | | | |
| APTIC | ● | ● | ● | ● | | | | | | ● | | | | | ● | ● | | | ● | | ● | ● |
| BIOSIS PREVIEWS | | ● | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | | ● |
| CAB ABSTRACTS | | ● | | ● | | ● | | | | ● | ● | ● | ● | ● | ● | | | ● | | | ● | ● |
| CANCERLIT | ● | ● | | | | | ● | | | | | | | | ● | | | | | | | |
| CBDS | ● | ● | ● | | | ● | | | | | | | | | ● | | | | | | | |
| CDBK | | | ● | | | | | | | | ● | ● | | ● | | | | | | | | |
| CDI | | ● | | | | ● | | | ● | ● | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| CDS | | | | | | | | | | | ● | | | | | | | | ● | | | ●[3] |
| CEH | | | | | | ● | | | | | ● | ● | | ● | | | | | | | | |
| CESARS | | | ● | | | | | ● | | | | | ● | | ● | ● | | | | | | |
| CFCP | ● | | ● | | | | | | | | ● | ● | ● | ● | | | | | | | | |
| CHEMICAL ABSTRACTS | ● | ● | | | | ● | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| CHEMLINE | ● | | ● | | | | ● | | | | | | ● | | | | | | | | | |
| CHEMNAME | ● | | ● | | | | | | | ● | | | ● | | ● | | | | | | | |
| CHEMTREC | | | | | ● | | | | | | ● | | | | ● | | ● | | ● | ● | | |
| CICIS | ● | | ● | | | | | | | | ● | ● | ● | ● | | | | | | | | ● |
| CIN | ● | ● | | ● | | ● | | | ● | ● | ● | ● | | ● | | | | | | | | ● |
| CLAIMS/U.S. PATENT ABSTRACTS | ● | ● | ● | | | | | | | ● | | ● | | ● | | | | | | | | |
| CLAIMS/CLASS | ● | ● | ● | | | | | | | ● | | ● | | ● | | | | | | | | |
| CNMR | ● | | ● | | | | | ● | | | | | ● | | | | | | | | | |
| COMPENDEX | ● | ● | | ● | | ● | | | ● | ● | ● | | | | | | | ● | | | ● | |
| CPD | | | | | | ● | | | | | ● | ● | | ● | | | | | | | | |

## Exhibit 2
## MATRIX OF CHEMICAL INFORMATION RESOURCES
## (Continued)

| | | MODEL OF OUTPUT | | | | | PRESENT NETWORK | | | | COVERAGE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | D | E | | | | | | | | | | | | | | | | |
| | SEARCH BY CAS NUMBER | BIBLIOGRAPHIC SEARCH | COMPUTERIZED QUANTITATIVE | ABSTRACTS | LIST OF REFERRALS | PUBLICATION | NLM | CIS | ORBIT | DIALOG | INDUSTRIES | PRODUCERS | CHEMICAL/PHYSICAL PROPERTIES | USE DATA | TOXICOLOGY | ENVIRONMENTAL EFFECTS | SPILL RESPONSE | DISPOSAL METHODS | AIR DATA | WATER DATA | CONTROL TECHNOLOGY | REGULATIONS |
| CRIS/USDA | | ● | | ● | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| CRGS | ● | ● | | ● | | | | | | ● | | | | | | | | | | | | ● |
| CRR | | | | | | ● | | | | | ● | | | | | | | | | | | ● |
| CRYST | | | ● | | | ● | | | | | | | ● | | | | | | | | | |
| CTCP | ● | | ● | | | ● | | | | | ● | ● | | | ● | | | | | | | |
| CURR/CONT | | | ● | | | ● | | | | | | ● | | | | | | | | | | |
| DCP | | | | | | ● | | | | | ● | ● | | ● | | | | | | | | |
| EADS | | | ● | | | | | | | | ● | | | | | | | ● | ● | ● | ● | |
| EIS INDUSTRIAL PLANTS | | | ● | | | | | | | ● | ● | ● | | ● | | | | | | | | |
| EIS NONMANUFACTURING EST. | | | ● | | | | | | | ● | ● | ● | | ● | | | | | | | | |
| EMIC | ● | ● | | | ● | | ● | | | | | | | | ● | | | | | | | |
| ENERGYLINE | ● | ● | | | | | | | ● | ● | ● | | ● | ● | ● | | | | | | ● | ● |
| ENVIROLINE | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| EPACASR | ● | ● | | | | ● | | | | | | ●[6] | | ●[6] | ●[6] | ●[6] | | | ●[6] | ●[6] | | ● |
| ETIC | ● | ● | | | ● | | ● | | | | | | | | ● | | | | | | | |
| FEDERAL INDEX | | ● | | | | | | | | ● | ● | | | | | | | | | | | ● |
| FOODS ADLIBRA | | ● | | ● | | | | | | ● | ● | ● | | ● | ● | | | | | | | |
| FRSS | ● | ● | | ● | | | | ● | | | | | | | | | | | | | | ● |
| FSTA | ● | ● | | ● | | | | | ● | ● | ● | | | ● | ● | | | ● | | | ● | ● |
| HMSM | ● | | | | | ● | | | | | | | | | ● | | ● | | | | | |
| IEDC | | | ● | | | | | | | | | | ● | | | | | | | | | |
| IFIS | ● | | ● | | | | | | | | ● | | | | ● | | | ●[1] | ●[1] | ●[1] | ● | ● |
| INSPEC | ● | ● | | | | | | | ● | ● | | | ● | | | | | | ● | | ● | |
| IPC CHEMICAL DATA BASE | | | ● | | | | | | | | ● | ● | | ● | | | | | | | | |
| ISMEC | ● | ● | | | | | | | ● | ● | ● | | | | | ● | | | | | ● | |
| KIRK-OTHMER | | | | | | ● | | | | | ● | | ● | ● | ● | ● | | | | | | |
| MEDLINE | ● | ● | | | | | ● | | | | | | | | | ● | ● | | | | | |
| MERCK INDEX | ●[2] | | | | | ● | | | | | | ● | ● | | ● | | | | | | | |

## Exhibit 2
## MATRIX OF CHEMICAL INFORMATION RESOURCES
## (Continued)

| | | MODEL OF OUTPUT | | | | | PRESENT NETWORK | | | | COVERAGE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | D | E | | | | | | | | | | | | | | | | |
| | SEARCH BY CAS NUMBER | BIBLIOGRAPHIC SEARCH | COMPUTERIZED QUANTITATIVE | ABSTRACTS | LIST OF REFERRALS | PUBLICATION | NLM | CIS | ORBIT | DIALOG | INDUSTRIES | PRODUCERS | CHEMICAL/PHYSICAL PROPERTIES | USE DATA | TOXICOLOGY | ENVIRONMENTAL EFFECTS | SPILL RESPONSE | DISPOSAL METHODS | AIR DATA | WATER DATA | CONTROL TECHNOLOGY | REGULATIONS |
| METADEX | ● | ● | | | | | | | | ● | ● | | ● | ● | ● | | | ● | | | ● | |
| MSSS | ● | ● | | | | | | ● | | | | | ● | | | | | | | | | |
| NFPA | | | | | | ● | | | | | | | ● | ● | ● | | ● | | | | | |
| NIOSHTIC | ● | ● | | | | | | | | | | | | | ● | ● | | | | | | |
| NOAA DATA BASE | | ● | | | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| NOES | | | ● | | | ● | | | | | | | | ● | ● | | | | ● | | | ● |
| NSF-HCL | | | | | ● | | | | | | | | ● | ● | ● | ● | | | ● | ● | | |
| NSRDS | ● | | ● | | ● | ● | | ● | | | | | ● | | | | | | | | | |
| NTIS | | ● | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| OA | ● | ● | | | | ● | | | ● | ● | ● | | ● | | ● | ● | ● | | | ● | ● | ● |
| OCPDB | ● | | ● | | | | | | | | ● | ● | ● | ● | | | | | | | | ● 5 |
| OHM-TADS | ● | ● | ● | ● | | | | ● | | | | | ● | ● | ● | ● | ● | ● | | ● | | |
| PAPERCHEM | | ● | | ● | | ● | | | ● | | ● | | ● | ● | | | | | | ● | | |
| PDSM | ● | | | | | | | ● | | | | | ● | | | | | | | | | |
| PESTDOC | | ● | | ● | | | | | ● | | ● | | ● | ● | ● | ● | ● | | | | | |
| PHS-149 | ● | ● | | | | | | ● | | | | | ● | | ● | | | | | | | |
| PIRA | | ● | | ● | | ● | | | | | ● | ● | ● | ● | ● | | | | | | | |
| POISINDEX | | ● | | | | | | | | | | | ● | | ● | | | | | | | |
| POLLUTION ABSTRACTS | | ● | | | | ● | | | ● | ● | | | ● | | ● | ● | ● | ● | ● | ● | ● | ● |
| PTS F&S INDEX | | ● | | ● | | | | | | ● | ● | ● | | ● | | ● | | | | | ● | ● |
| PTS-PROMT | | ● | | ● | | | | | | ● | ● | ● | | ● | | ● | | | | | ● | ● |
| RAPRA ABSTRACTS | | ● | | ● | | | | | | ● | ● | ● | ● | ● | ● | ● | | | | | ● | |
| RTECS | ● | | ● | ● | | ● | ● | ● | | | ● | | | | ● | ● | | | | | | ● |
| SAFETY | | | | | | ● | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |
| SANSS | ● | | ● | | | | | ● | | | | | ● | | | | | | | | | |
| SCA | | ● | | | | ● | | | | ● | | | | ● | ● | ● | | | | | ● | |
| SCISEARCH | | ● | | | | | | | | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● |

## Exhibit 2
## MATRIX OF CHEMICAL INFORMATION RESOURCES
(Continued)

| | | MODEL OF OUTPUT | | | | | PRESENT NETWORK | | | | COVERAGE | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | A | B | C | D | E | | | | | | | | | | | | | | | | |
| | SEARCH BY CAS NUMBER | BIBLIOGRAPHIC SEARCH | COMPUTERIZED QUANTITATIVE | ABSTRACTS | LIST OF REFERRALS | PUBLICATION | NLM | CIS | ORBIT | DIALOG | INDUSTRIES | PRODUCERS | CHEMICAL/PHYSICAL PROPERTIES | USE DATA | TOXICOLOGY | ENVIRONMENTAL EFFECTS | SPILL RESPONSE | DISPOSAL METHODS | AIR DATA | WATER DATA | CONTROL TECHNOLOGY | REGULATIONS |
| SPHERE | ● | | ● | | | | | ● | | | | | ● | | ● | ● | | | | | | |
| SPIN | | | ● | | | | | | | ● | | | ● | | | | | | | | | |
| STANDARD AND POOR'S NEWS | | ● | ● | ● | | | | | | ● | ● | ● | | ● | | | | | | | | ● |
| STORET | ● | | ● | | | | | | | | | | | | | | | | | ● | | |
| SYNORG | | | | ● | | ● | | | | | ● | ● | | ● | | | | | | | | |
| TDB | ● | | ● | | | | ● | | | | ● | ● | ● | ● | ● | ● | | ● | | | | |
| TDMS | ● | | | | | | | | | | | | | | ● | ● | | | | | | |
| TED | | | ● | | | | | | | | | ● | | ● | | | | | | | | ●[3] |
| TITUS | | ● | | ● | | | | | | | ● | ● | ● | ● | ● | ● | | | | | ● | ● |
| TOXLINE/TOXBACK | ● | ● | | | | | ● | | | | | | | | ● | ● | | | | | | |
| TOXTIPS | ● | | | | | ● | ● | | | | ● | | | | ● | ● | | | | | | |
| TRIS ABSTRACTS | ● | ● | | | | | | | | ● | ● | | | | ● | ● | ● | ● | | ● | | |
| TULSA | | ● | | ● | | ● | | | ● | | | | ● | | | ● | ● | ● | | ● | ● | |
| UPGRADE | | | ● | | | | | | | | ● | | | | ● | ● | | | | ● | ● | |
| USP | | | | | | ● | | | | | | | ● | | ● | | | | | | | |
| WDROP | ● | ● | ● | ● | | | | ● | | | | | | ● | | | | | | ● | | |
| WORLD ALUMINUM ABSTRACTS | | ● | | ● | | ● | | | | ● | ● | | ● | ● | ● | ● | | | | | ● | |
| WORLD TEXTILES | | ● | | ● | | ● | | | | | ● | ● | ● | ● | ● | ● | ● | | | | ● | ● |
| XTAL | ● | | ● | | | | | | | | | | ● | | | | | | | | | |

1. Information included when available.
2. Includes CAS number for chemicals, but not searchable by CAS number.
3. Data collected to support regulatory activity under TSCA, includes no actual listing or regulations.
4. Data collected to support regulatory activity under the Clean Air Act, no actual listing of regulations.
5. Includes background data upon which EPA is using to establish air and water quality criteria; includes no actual listing of regulations.
6. "Pointer" capabilities; identifies available information in that field.

# SECTION I - DATA BASE DIRECTORY

This section of the Handbook is a compilation of chemical information resources descriptions. For each resource, the following information is provided:

- Scope of information available to the user of the data base; and
- Access procedures.

# AEROS

## Scope

The Aerometric and Emissions Reporting System (AEROS) was established by the EPA to serve as a management information system for EPA's air pollution research and control programs. As such, AEROS is mainly concerned with the collection, processing, and reporting of basic air pollution data. Various supplementary data files are also maintained to provide additional information valuable for the preparation and analysis of air pollution data.

The major data components of AEROS are ambient air quality and air pollution source and emissions data. The former consists of air quality monitoring site descriptions and their data, plus pollutant and method reporting codes. Emission point sources test results are also included. The outputs are published reports and raw data output listings. Volume 1 of the reports is a system summary. Volume II is a system user manual. Volume III, the AEROS Summary and Retrieval Manual, is intended for those who want to obtain data from AEROS. Volume III describes AEROS reports, how they may be used, and gives instructions on how to obtain them. Volume IV is the National Air Data Branch (NADB) Internal Operations Manual, which documents, in detail, all NADB procedures related to AEROS. Certain portions of Volume IV may be of interest to persons interested in all details of AEROS operations, but it is intended mainly as a guide for NADB personnel. Volume V is the AEROS Coding Manual. It contains tables of standard emission codes for use with Volume II.

AEROS consists of ten data storage and retrieval subsystems:

- the National Emissions Data System (NEDS), which stores and reports source and emissions-related data for the five criteria pollutants (particulates, SOx, NOx, CO, and hydrocarbons);
- the Storage and Retrieval of Aerometric Data (SAROAD) system, which stores and reports information relating to ambient air quality covering 65 pollutants and which includes site data;
- the Hazardous and Trace Substance Emissions System (HATREMS), which stores and reports sources and emissions data for non-criteria pollutants;
- the Source Test Data (SOTDAT) system, which stores and retrieves relevant technical data collected during source emission measurements (i.e., stack tests);
- the State Implementation Plans (SIPS) regulation system, which provides retrievals of EPA-approved state air pollution control regulations;

- the Emissions History Information System (EHIS), which provides historical trends information on nationwide emissions and may also function as a computerized technique for examination of air pollutant emissions scenarios;
- the Weighted Sensitivity Analysis Program (WSAP), which operates on NEDS data to compute the variance that can be tolerated in the emission estimate for each source category in order that some overall user-specified limit shall not be exceeded;
- the Source Inventory and Emission Factor Analysis (SIEFA) program, which complements WSAP by computing the actual (as opposed to allowable) imprecision in emission estimates for each source category in NEDS due to imprecision in emission inventory techniques and source data;
- the Computer Assisted Area Source Emissions (CAASE) System, which calculates county ambient emissions levels; and
- the Regional Emissions Projection System (REPS), which does regional emission projections up to the year 2000.

Access:

Standard AEROS reports are published periodically and are available from the EPA Air Pollution Technical Information Center (APTIC) at Research Triangle Park, NC, or the National Technical Information Service (NTIS) in Springfield, VA. Many of the standard published reports and a number of additional standard reports are also readily available from the National Air Data Branch (NADB), Research Triangle Park, NC, or from the ten EPA Regional Offices. To meet requirements not met by standard AEROS reports, it is also often possible to restructure and report data as required in response to special requests.

## AGLINE

### Scope:

The Agline (formerly DOANE) is a bibliographic data base covering the literature on agricultural practice, production, products, and marketing. This data base includes agribusiness news, farm chemicals and fuels, livestock production, government policies and programs, legislation, regulations, and laws.

The file is updated monthly from agribusiness trade journals, government reports, news items, land grant college publications, and speeches.

### Access:

AGLINE is available through the ORBIT information retrieval system. Consult Appendix A.

## AGRICOLA

### Scope:

AGRICOLA (Agricultural Online Access) is produced by the National Agriculture Library (NAL) of the U.S. Department of Agriculture (USDA). AGRICOLA serves as a document locator and bibliographic control system for the NAL collection and is also used to print cards for NAL's card catalogs, the Bibliography of Agriculture, The National Agricultural Library Catalog, and the Catalog of the Food and Nutrition Information and Educational Materials Center. This extensive file provides comprehensive coverage of newly acquired worldwide publications in agriculture and related fields. AGRICOLA consists of three subfiles: CAIN (Cataloging and Indexing), FNC (Food and Nutrition Collection), and AGE (Agricultural Economics).

AGRICOLA covers the field of agriculture in its broadest sense. Some of the specific areas covered are:

- Agricultural Economics
- Agricultural Engineering
- Agricultural Products
- Agriculture in General
- Animal Industries
- Botany
- Chemistry
- Energy in Agriculture
- Entomology
- Fertilizers
- Foods
- Forestry
- Human Nutrition
- Hydroponics
- Pesticides
- Plant Sciences
- Pollution
- Rural Sociology
- Soils
- Veterinary Medicine
- Water Management

### Access:

AGRICOLA is produced by NAL and is available through the DIALOG, ORBIT and BRS information retrieval systems. Computer tapes are also available through NTIS.

## AGRIS

### Scope:

AGRIS (Agricultural Information System for Sciences and Technology) is a bibliographic data base that contains citations, some with abstracts, to the world literature on all aspects of agriculture. Topics covered include:

- Geography and History
- Laws
- Extension
- Education and Advisory Work
- Economics
- Development
- Marketing and Rural Sociology
- Plant Production and Stored Natural Products
- Forestry
- Animal Production
- Veterinary Medicine
- Botany
- Marine Biology and Fisheries
- Equipment
- Machinery, and Buildings
- Natural Resources
- Food Science
- Human Nutrition
- Home Economics
- Pollution

The file is updated monthly. The major sources of bibliographic data are journal articles and other data obtained from government reports, monographs, published proceedings, theses, maps, and various non-conventional documents.

### Access:

AGRIS is available through the European Space Agency-Information retrieval systems. Users currently may get on-line through the ESA-IRS system by contacting:

ESA-IRS
Attention: Dr. G.A. Proca
Head of On-line Services
ESRIN
Via Galileo Galilei
Casella Posteale 64
00044 Frascati, Italy
Telephone: 011-39-6-942-2401 (from U.S.)

Users may soon be able to access the ESA-IRS by contacting:

ESA
955 L'Enfant Plaza N, S.W.
Washington, D.C. 20024
Telephone: (202) 488-4158.

# APILIT

## Scope:

The APILIT (American Petroleum Institute Literature) covers the worldwide literature pertaining to the petrochemical and petroleum refining industries. This literature includes scientific, technical and engineering developments in the areas of:

- Petroleum Refining
- Petrochemicals
- Petroleum Substitutes
- Air and Water Conservation
- Transportation and Storage

Source documents include trade journals, technical journals, meeting papers, and government reports.

## Access:

APILIT is available through the ORBIT information retrieval system. Consult Appendix A.

## APIPAT

### Scope:

American Petroleum Institute Patents (APIPAT) covers patents of the petrochemical and petroleum refining industries from the United States, Canada, South Africa, Holland, Belgium, France, Germany, Great Britain, and Japan.

### Access:

APIPAT is available through the ORBIT information retrieval system. Consult Appendix A.

# APTIC

## Scope:

The APTIC (Air Pollution Technical Information Center) data base is a comprehensive resource on all aspects of air pollution and its effects, prevention, and control. The APTIC data base includes abstracts of selected technical literature acquired by EPA's Air Pollution Technical Information Center, including all abstracts that appeared in Air Pollution Abstracts (no longer published). APTIC covers the field of air pollution in the broadest sense, including the social, political, legal, and administrative aspects of the field. General subjects treated in this data base are as follows:

- Atmospheric Interaction
- Basic Science and Technology
- Control Methods
- Economic Aspects
- Effects on Human Health
- Effects on Materials
- Effects on Plants and Livestock
- Emission Sources
- Government Participation (Legal and Administrative)
- Measurement Methods
- Pollution Data (Air Quality and Emission Inventories)
- Social Aspects and Public Involvement
- Standards and Criteria

## Access:

APTIC is available through the DIALOG information retrieval system. Consult Appendix A.

## BIOSIS PREVIEWS

### Scope:

BIOSIS PREVIEWS contains citations from both Biological Abstracts (BA) and Biological Abstracts/RRM, the major publications of BioSciences Information Service of Biological Abstracts. Together, these publications constitute the major English-language service providing comprehensive worldwide coverage of research in the life sciences. Biological Abstracts includes approximately 240,000 accounts of original research yearly from nearly 9,000 primary journal and monograph titles, symposia, reviews, preliminary reports, semi-popular journals, selected institutional and government reports, research communications, and other secondary sources. All life sciences subjects are covered, including but not limited to the following:

- Aerospace Biology
- Agriculture
- Anatomy
- Bacteriology
- Behavioral Sciences
- Biochemistry
- Bioengineering
- Biophysics
- Botany
- Cell Biology
- Environmental Biology
- Experimental Medicine
- Genetics
- Immunology
- Microbiology
- Nutrition
- Parasitology
- Pathology
- Pharmacology
- Physiology
- Public Health
- Radiation Biology
- Systematic Biology
- Toxicology
- Veterinary Medicine
- Virology
- Zoology

### Access:

BIOSIS PREVIEWS is available in hard copy from BioSciences Information Service in Philadelphia or online from the DIALOG and ORBIT information retrieval systems. Consult Appendix A.

## CAB ABSTRACTS

### Scope:

Commonwealth Agricultural Bureaux (CAB) Abstracts is a comprehensive file of agricultural and bibliographic information containing all records in the more than 26 main abstracting journals published by the Commonwealth Agricultural Bureaux. Sources of information include over 8,500 journals in 37 languages, books, reports, and other publications. The file currently contains over one million items. About 130,000 items are added yearly. Subject areas covered include:

- Biology
- Economics
- Engineering
- Education
- Forestry
- Genetics
- Pest Control and Pesticides
- Rural Planning
- Sociology
- Taxonomy, and Veterinary Medicine

Bibliographic data are updated monthly. The major sources are journal articles and other information obtained from government reports, monographs, published proceedings and theses.

### Access:

CAB ABSTRACTS is available through the DIALOG information retrieval system. Consult Appendix A.

# CANCERLIT

## Scope:

Cancer Literature (CANCERLIT), formerly called CANCERLINE, is sponsored by the National Institute of Health's (NIH) National Cancer Institute (NCI), and contains more than 260,000 references dealing with various aspects of cancer. All references have English abstracts. Over 4,000 U.S. and foreign journals, as well as selected monographs, meeting papers, reports, and dissertations are abstracted for inclusion in CANCERLIT.

## Access:

Access to CANCERLIT is available through the MEDLARS information retrieval system. Consult Appendix A.

## CBDS

Scope:

The Carcinogenesis Bioassay Data System (CBDS) contains information about the animals and chemicals involved in carcinogenesis/oncogenesis bioassay studies. The CBDS was designed to collect, maintain, report, and conduct statistical analyses of bioassay data. The data include information about chemicals, chemical preparations, test environments, and individual animals. CBDS has undergone evolutionary development since its beginnings in 1972, and it now consists of several systems and subsystems that have resulted from the merging the data from more than 2000 studies. The four major systems relate to:

- In Vivo Studies
- In Vitro Studies
- Chemical Tracking
- Financial and Administrative Management

Subsystems of in-vivo studies involve animal wastes, statistics, and environmental data. Subsystems of in-vitro studies include Salmonella transformation and mouse lymphoma bioassays. The chemical tracking is a management tool that allows the National Toxicology Program (NTP) to track chemicals through the various bioassay tests. The fourth major system allows NTP to manage the financial resources of the bioassay program. While CBDS is not available to the public, the statistical bioassay data from CBDS are included in publicly available technical reports that are prepared for distribution by NTP. The file is updated daily. Data are obtained from research contractors' laboratories throughout the U.S. and one source in Scotland.

Access:

Direct access to the CBDS is available only to NTP staff. However, EPA staff may indirectly get information on the CBDS by contacting:

Toxicology Information and Scientific Education Group
NTP
Bethesda, Maryland
Telephone: (301) 496-1152.

## CDBK

### Scope:

Chemical Data Banks (CDBK) consists of five data bases that provide extensive coverage of economic, market, and financial conditions relevant to the chemical industry. The "inorganic and organic chemicals" data bank contains annual, quarterly, and monthly information on production, sales and uses, and foreign trade of chemical products by type. The "capacity" data bank contains annual data on plant capacities by product, process, company, and location. The "financial" data bank provides annual financial data on chemical companies including sales, net worth, net income, plant and equipment, total assets, and capital expenditures. The "economic indicators" data base contains yearly, quarterly, and monthly data on the gross national product and components, industrial production indices, housing, automobiles, and consumer expenditures. The "prices" data bank offers yearly, quarterly, and monthly statistics on the wholesale price indices for chemicals, unit values, and market prices.

Sources of data include the Chlorine Institute; The Society of the Plastics Industry; U.S. Dept. of Commerce; Textile Economics Bureau; Rubber Manufacturers Association; McGraw-Hill, Inc.; U.S. Dept. of Labor; and U.S. International Trade Commission.

### Access:

CHEMICAL DATA BANKS is available from:

Data Resources, Inc.
29 Hartwell Avenue
Lexington, MA 02173
Telephone: (617) 861-0165.

EPA currently has access to CHEMICAL DATA BANKS through the contractor, Meta Systems.

## CDI

### Scope:

Comprehensive Dissertation Index (CDI) is a definitive subject, title, and author guide to virtually every American dissertation accepted at an accredited institution since 1861, when academic doctoral degrees were first granted in the United States. Approximately 99 percent of all American dissertations are cited in this file. In addition, it serves to disseminate citations for thousands of Canadian dissertations and an increasing number of papers accepted in institutions abroad. Professional (e.g., M.D., L.L.D.) and honorary degrees are not included.

All subject areas are covered, including the following:

- Mathematics and Statistics
- Fine Arts and Music
- Library and Information Science
- Psychology and Sociology
- Business and Economics
- Geography and Regional Planning
- Chemistry
- Health Sciences
- Engineering
- History and Political Science
- Language and Literature
- Philosophy and Religion
- Agriculture
- Astronomy
- Biological and Environmental Sciences
- Geology
- Physics
- Education

### Access:

Comprehensive Dissertation Index is available through the DIALOG and ORBIT information retrieval systems. Consult Appendix A.

## CDS

Scope:

Compliance Data System (CDS) was developed for the Stationary Source Compliance Division of EPA to assist it in carrying out enforcement and surveillance programs. CDS provides users with a tool for managing large quantities of non-parametric stationary source information in an expeditious manner. The system can store, update, and retrieve large quantities of data describing the compliance status and the enforcement activities of all major and many minor sources of stationary air pollution. Output reports from the system enable users to:

- maintain a complete inventory of facilities emitting regulated pollutants;
- assess enforcement strategies;
- monitor state and regional enforcement activities; and
- measure compliance and enforcement progress.

Regional EPA Offices are using CDS in a number of ways in their enforcement programs, including:

- to provide an accurate and easily accessible inventory of facilities subject to Federal and state emission regulations and their compliance status with respect to these regulations;
- to develop enforcement strategies by providing summaries of the compliance status of facilities tracked by CDS;
- to provide a means for tracking numerous Federal, state, and local enforcement actions both for historical purposes and for future scheduling purposes;
- to assist the regions in the preparation of various national reporting requirements; and
- to provide various turnaround reports to be used by states in fulfilling their reporting requirements to their region.

CDS is not designed to store large quantities of parametric emissions data; instead, it is a management information system for tracking compliance and enforcement information in an easily accessible manner. In effect, CDS is an automated tickler file which provides both historical and current record keeping capabilities.

Access:

CDS is available by contacting the CDS regional EPA managers (one from each region) or by contacting:

Franklin C. Smith
CDS National Manager
Stationary Source Compliance Division (EN-341)
Office of Air, Noise and Radiation
U.S. Environmental Protection Agency
Washington, D.C. 20460
Telephone: (202) 382-2881.

## CEH

### Scope:

The Chemical Economics Handbook (CEH) is a loose-leaf series of volumes concerned with the economic status and progress of the world's chemical industries. Participants (subscribers) are kept informed regarding the present and future status of raw materials, primary and intermediate chemicals, chemical product groups, the chemical industry, and those aspects of other industries and the total economy that are relevant to the chemical industry. Emphasis is placed on future markets, both in terms of quantities and economies of chemicals produced/consumed and the technological requirements of future demand.

Sections of the CEH are:

- Introduction
- Index
- Economic Indicators
- Manual of Current Indicators
- Industry
- Chemical Product Groups
- Organic Chemicals
- Inorganic Chemicals

The main body of CEH is made up of Reports and Data Sheets concerning individual chemicals or groups of chemicals. Data Sheets are summaries including data on chemical production, sales, consumption, price, manufacturing processes, producing companies, plant locations, plant capacities, imports, exports, and sources used. Yearly growth rates can be extrapolated and compared using the standardized graphs and a special protractor included with each CEH set.

Reports contain detailed analytical sections on topics not covered by the Data Sheets. CEH Reports are written by subject specialists and reviewed by collaborating experts in the chemical industry, market researchers, or product managers.

One volume, the Manual of Current Indicators, reports recent economic statistics and is updated and reissued every other month.

CEH contains chemical industry economic indicators such as product growth curves, production quantities, inventory data, price, and export/import ratios. Plant locations, capacities, and other data are gathered and updated occasionally. Specialized volumes deal with specific industries such as pesticides.

### Access:

CEH is produced and disseminated by:

Chemical Marketing Research Center
Chemical Industries Division,
SRI International, Menlo Park, California 94025
Telephone: (415) 326-6200.

## CESARS

### Scope:

The Chemical Evaluation Search and Retrieval System (CESARS) is an online, interactive file containing physical/chemical, toxicological, and environmental information extracted from the current literature, textbooks, journals, documents, and other information sources. It provides detailed information and evaluations on a group of chemicals of particular importance in the great Lakes Basin.

The second version of CESARS became operational in March 1983 and contained 150 chemical records. The data base will be updated quarterly.

### Access:

CESARS is available through the Chemical Information System (CIS). Consult Appendix A.

## CFCP

### Scope:

The Chemical Formulations of Consumer Products (CFCP) data base contains formulations (ingredients with percentage) information for over 15,000 U.S. consumer products.

Data were collected directly from over 1,600 manufacturers required to report ingredients to a specificity of 0.1 percent. Approximately 45 percent of the product formulations were designated by the manufacturers as proprietary data or trade secrets.

The data base consists of four files: A Manufacturers-Product file containing manufacturer names, codes, and addressee; a Product-Ingredient file containing product names, codes, and formulation data; a Chemical Dictionary file that is a name authority file relating Chemical Abstracts Service Registry Numbers and nomenclature to trade names and other chemical names reported by manufacturers; and a bookkeeping file containing file status and management data.

### Access:

The file is maintained by the Consumer Product Safety Commission, Bethesda, Maryland. For access, contact:

Mr. John Clements
Consumer Product Safety Commission
5401 Westbard Avenue
Room 852
Bethesda, Maryland
301-492-6445

## CHEMICAL ABSTRACTS

Scope:

The data bases that contain condensed complete versions or parts of the Chemical Abstracts files are: ORBIT's CHEM 7071, CAS7276; and CAS77 and DIALOG's CASearch, Chemname, Chemsearch, Chemsis, and Chemzero. The data bases cover the following principal areas:

- Applied Chemistry
- Biochemistry and Biology
- Chemical Engineering
- Chemical Substances
- Class of Substances
- Macromolecular Chemistry
- Organic and Inorganic Chemistry
- Physical and Analytical Chemistry
- Properties and Reactions

Access:

As mentioned above, information in Chemical Abstracts files can be accessed using both the ORBIT and DIALOG information retrieval systems. Consult Appendix A.

## CHEMLINE

### Scope:

CHEMLINE (Chemical Dictionary OnLine) is the National Library of Mecicine's (NLM) online, interactive chemical dictionary file created in collaboration with Chemical Abstracts Service (CAS). It provides a means whereby over 550,000 chemical substance names can be searched and retrieved online.

The resource contains CAS Registry Numbers, molecular formulae, preferred chemical nomeclature, generic and trivial names derived from the CAS Registry Nomenclature File, and a limited number of Wiswesser Line Notations (WLN). In addition, each Registry Number record contains, where applicable, ring information including: number of rings, ring sizes, ring element analysis, and component line formulae.

CHEMLINE contains chemical records for substances indexed in other NLM bibliographic files. It may be used as a pre-search tool to verify or expand chemical names or Registry Numbers to enhance the user's search of other NLM data bases.

### Access:

CHEMLINE is a component of the MEDLARS information retrieval service of the national Library of Medicine, Bethesda, Maryland. For information about how to access MEDLARS, consult Appendix A.

# CHEMNAME

## Scope:

CHEMNAME (Chemical Abstracts Chemical Name Dictionary) contains a listing of chemical substances in a dictionary-type, non-bibliographic file. For each substance listed, the Chemical Abstracts Service (CAS) Registry Number, molecular formula, Chemical Abstracts (CA) Substance Index Name, available synonyms, ring data and other chemical substance information are listed. The primary purpose of this file is to support specific substance searching and substructure searching.

CHEMNAME presently includes those chemical substances in the CAS Registry System that have been referenced two or more times from January 1967 through the last quarterly update, which includes the 9th Collective Index period. Chemical substances cited two or more time in one collective index period will also appear in other collective index periods without change in CAS Registry Number.

## Access:

CHEMNAME is available through the DIALOG information retrieval system. Consult Appendix A.

## CHEMTREC

### Scope:

CHEMTREC (the Chemical Transportation Emergency Center) is an information center that provides immediate hazard warnings and guidance to those on the scene of a chemical transportation accident or emergency. Available by telephone 24 hours a day, CHEMTREC may be used by any carrier, shipper, emergency service, or other persons encountering a transport-related chemical spill, leak, fire, release, exposure, or accident. Persons who notice or suspect a leak, spill, or potential problem concerning chemicals in transport should contact CHEMTREC for assistance in preventing or remedying an emergency.

CHEMTREC will attempt to ascertain the name(s) of the product, nature of the problem, location, shipper, manufacturer, container type, rail car or truck number, carrier name, consignee, and local conditions (weather, population density) from the individual who contacts the center.

CHEMTREC maintains extensive files for the identification of trade names, chemical names, shippers, and carriers. Using these files, CHEMTREC personnel provide the caller with indications of the hazards involved in giving specific instructions for handling the emergency. CHEMTREC personnel then contact the shipper and relay the particulars of the emergency, thus passing responsibility for further guidance to the shipper. In some cases, manufacturers, government agencies, police, or emergency services will be contacted directly.

The file contains 3,600 chemical dossiers searchable under 46,000 trade names. It provides over 900 personal contact names for expert consultation regarding the chemical. The data base is a manual card file.

### Access:

CHEMTREC is operated by the Chemical Manufacturers Association. Access is obtained by a telephone call to:

CHEMTREC
Washington, D.C.
Telephone: (800) 424-9300 in the continential
U.S., except Washington, D.C. or
(202) 483-7616.

# CICIS

## Scope:

The CICIS (Chemicals in Commerce Information System) is an online interactive management information system of the Office of Toxic Substances of EPA. Its purpose in to store and enable utilization of information and data collected under the mandates of TSCA. Much of CICIS' content is proprietary, but a portion of the file with non-proprietary data is publicly available.

CICIS is being developed in modular stages. The first available and core module is the TSCA Inventory, containing chemical identification and production data submitted to EPA in 1978 by chemical manufacturers and importers as required under TSCA. Other currently available modules are:

- Chemical Inventory System: for management of industry-reported data on chemical substances currently manufactured, processed, or imported into the U.S.; it also contains data on manufacturers, processors, and importers.
- Premanufacture Submissions Module: allows users to display selected portions of data submitted in premanufacture notices.
- Chemical Information Data Base: includes data in the current Inventory, plus additional data from submissions.

Additional modules will contain information on usage, health and safety studies, exposure, environmental effects, test results, production updates, disposal methods, and byproducts and impurities, in support of risk assessment of specific chemicals or groups of chemicals, or monitoring, environmental, planning and management, and other activities that assess the extent of the environmental program in certain localities or media. Most of these data will be submitted by chemical manufacturers as required under TSCA. Among the subsystems planned for the completed CISIS are:

- Organization/Site Data Base: will contain data specific to all industry submitters of data.
- Health and Safety Subsystem: will keep track of health and safety studies submitted for risk assessment activities. Some data from the studies may also be stored in this data base.
- Test Results Subsystems: stores test results data received uder TSCA and from other sources. Results will be linked to chemicals, documents, and other data in the data base.

## Access:

The system is currently accessible by application to the U.S. EPA Office of Toxic Substances in Washington, D.C. (202-382-3998). Access to confidential information must be preceded by EPA clearance. Ultimate access will be made available through CSIN.

# CHEMICAL INDUSTRY NOTES

## Scope:

CHEMICAL INDUSTRY NOTES (CIN) is a bibliographic data base which corresponds to the weekly printed Chemical Industry Notes, both of which are produced by the American Chemical Society. CIN extracts articles from over 80 worldwide, business-oriented periodicals of interest to the chemical industry. The data base is updated weekly and contains over 350,000 records.

CIN extracts are organized into eight general categories:

- Production
- Pricing
- Sales
- Facilities
- Products and Processes
- Corporate Activities
- Government Activities
- People

## Access:

CHEMICAL INDUSTRY NOTES is available through the DIALOG and ORBIT information retrieval systems. Consult Appendix A.

# CLAIMS/U.S. PATENT ABSTRACTS

## Scope:

The CLAIMS/U.S. PATENT ABSTRACTS data base includes over 400,000 U.S. chemical and chemically related patents issued since 1950. Foreign equivalents from Belgium, France, Great Britain, West Germany, and The Netherlands are included to the extent of approximately 20 percent of the patents in the file. Over 60 percent of the records include Chemical Abstracts Registry numbers.

All patents in the Chemical section of the Official Gazette of the U.S. Patent Office together with any patents in the General, Electrical and Mechanical sections of the Gazette which are considered to be chemically oriented are included in the file.

## Access:

CLAIMS/U.S. PATENT ABSTRACTS is available through the DIALOG information retrieval system. Consult Appendix A.

## CLAIMS/CLASS

### Scope:

The CLAIMS/CLASS file is a dictionary index to U.S. Patent Office's classification codes and titles. This data base enables the searcher to identify classes and subclasses appropriate to more comprehensive searching of the CLAIMS/U.S. PATENT ABSTRACTS file to look up the title of the class or subclass observed on a record retrieved in the CLAIMS/U.S. PATENT ABSTRACTS file.

The 312 class titles cover all types of patents that have been issued for mechanical, electrical, and chemical inventions. The 14,561 subclass titles have been included for the 47 classes that are primarily chemical classes and have been used to classify the patents in the CLAIMS/U.S. PATENT ABSTRACTS files.

### Access:

CLAIMS/CLASS is available through the DIALOG information retrieval system. Consult Appendix A.

## CNMR

### Scope:

The Carbon-13 Nuclear Magnetic Resonance Spectral Search System (CNMR) is an online, interactive data base containing C-13 NMR spectra for over 6,000 chemical substances. Spectral data (as chemical shifts), Chemical Abstract Service (CAS) Registry numbers, CNMR accession numbers, and partial and complete molecular formulas are searchable. Printed/displayed output provides structural diagrams, CAS name, CAS Registry number, molecular weight, molecular formula, bibliographic citation to source of spectrum, solvent used, and chemical shifts parameters. Several search programs are available in the CNMR system. The user selected the program(s) best suited to the search criteria and the desired results.

### Access:

CNMR is available throught the Chemical Information Serivce (CIS). Consult Appendix A.

# COMPENDEX

## Scope:

Computerized Engineering Index (COMPENDEX) is the machine-readable version of the Engineering Index Monthly. This file is an interdisciplinary bibliographic index to the world literature (excluding patents) in engineering and technology developments. The total data base currently contains more than one million abstracts, arranged and cross-referenced under more than 12,000 indexing terms. It is growing at the rate of about 9,000 abstracts per month.

COMPENDEX includes the following subject areas:

- civil, environmental, geological, and biological engineering
- electronics
- electrical and control engineering
- chemical, chemical products, agricultural, and foods engineering
- mining, metals, petroleum, and fuel engineering
- mechanical, automotive, nuclear, and aerospace engineering
- transportation
- pollution, wastes, and sanitary engineering
- engineering mathematics
- engineering physics
- industrial and management applications.

Bibliographic data are obtained from journal articles, government reports, monographs, published proceedings, and papers presented at conferences. More than 35,000 primary sources from over 40 countries in 20 languages are reviewed yearly. COMPENDEX is updated monthly.

## Access:

COMPENDEX is available through the DIALOG, BRS, ORBIT, PERGAMON INFOLINE, INKA, CAN/OLE, and ESA-IRS information retrieval systems.

## CPD

### Scope:

Chemical Plant Data (CPD) is designed to provide worldwide information on chemical plants producing, or planning to produce, any of more than 100 basic chemicals. Currently, 114 chemicals, or in some cases classes of chemicals, are covered. The information available through this service is based upon material collected from a wide range of sources published in many languages; they include technical literature, company information, annual reports, etc. In addition, companies are approached to verify the information thus provided.

Subject coverage includes:

- 114 Chemical Commodities
- Producing Plant Listings (Worldwide)
- Plant Capacities, Start-Up Date
- Production/Sales/Statistical Summaries
- Producer/Process/Feedstock

### Access:

Currently, Chemical Plant Data is disseminated primarily in hard copy form. Online computer retrieval of this information is, however, in the planning stages. For further information contact:

The Sales Department
Chemical Data Services
Dorset House, Stamford Street
London, SE1 9LU, ENGLAND.

## CRGS

**Scope:**

The Chemical Regulations and Guidelines System (CRGS) is a system that maintains information on the current state of regulations and guidelines as they apply to selected chemicals or chemical classes. Information contained in CRGS includes:

- Federal Regulations
- U.S. Statutes
- Government Standards and Guidelines
- Current Awareness Documents

This material is obtained from a number of sources including:

- *Federal Register*
- *U.S. Code and Code of Federal Regulations* (CFR)
- *Congressional Record*
- Various Weekly "Reporters"
- Other Online Systems

Source Documents are included. Records are constructed for each citation, and these records are searchable via at least eleven different access keys including:

- Chemical Name
- CAS Registry Number
- Date of Issue
- Jurisdiction Code
- Responsibile Agency
- Controlled Subject Terms
- Product/Trade Name
- Product Code
- Document Category Code
- Regulation Status Code
- Terms in Abstracts

**Access:**

CRGS is available through the DIALOG information retrieval system. Consult Appendix A.

## CRIS/USDA

**Scope:**

Current Research Information System (CRIS/USDA) is a United States Department of Agriculture bibliographic file which contains information describing current research projects in agriculture and allied sciences covering the biological, physical, social and behavioral sciences related to agriculture in its broadest applications, including:

- Natural Resources Management and Conservation
- Marketing and Economics
- Food and Nutrition
- Consumer Health and Safety
- Community, Area and Regional Development
- Family Life, Housing and Rural Development
- Environmental Protection
- Forestry
- Outdoor Recreation

The projects sponsored in CRIS/USDA are sponsored or conducted by USDA research agencies, state agricultural experimental stations, state forestry schools and other cooperating state institutions. The file is updated quarterly.

**Access:**

CRIS/USDA is available through the DIALOG information retrieval system. Consult Appendix A.

## CRR

Scope:

The Chemical Regulation Reporter (CRR) is a set of loose-leaf reference files which report, index, and accumulate full texts of documents concerning chemical regulations and related activities. It is organized into four separate sections, each of which is in its own binder. These sections are: Current Reports, Reference File, Hazardous Materials Transportation, and the Index of Government Regulation. Of the four sections, only the Index of Government Regulation covers regulations pertaining to food, drugs, and cosmetics. However, all four sections cover chemical regulatory activity in other areas.

The weekly Current Report summarizes current events related to chemical regulation. Articles report matters involving general policy, criteria documents, legislation, litigation, testing, research, record keeping, reporting, enforcement, meetings, industry happenings, and other topics. Full texts of proposed regulations, agency statement of policy, grants and denials of exemptions from regulations, and other documents are given. A schedule of meetings and other events in Congress and the Executive Branch is also included.

The Reference File compiles the full texts of Federal laws and regulations concerning chemical substances, issuances under the Resource Conservation and Recovery Act, Occupational Safety and Health Act, Clean Air Act, Clean Water Act, Toxic Substances Control Act, Federal Insecticide, Fungicide and Rodenticide Act, and other relevant Federal statutes. It also includes the following: filing instructions; testing information; notification information; information on chemicals in air, water, land, and workplaces; manufacturing information; reporting; record keeping; administration information; and information on pesticides and radiation.

The Hazardous Materials Transportation section, available as a separate publication, reports current events and compiles laws and regulation, usually from the Department of Transportation, concerning the transportation of hazardous material.

The Index to Government Regulation is a chemical index to the Code of Federal Regulations, and the U.S. Code with citations to chemicals by generic name, industrial use name, and Chemical Abstracts Registry Numbers. This cross-agency index pulls together citations to existing government regulations that affect chemicals spanning subject areas such as agriculture, energy, food and drugs, product safety, pesticides, workplace exposure, transportation of hazardous substances, and alcohol.

Access:

The Chemical Regulation Reporter is generated, sponsored, and disseminated by:

Bureau of National Affairs
1231 25th Street, N.W.
Washington, D.C. 20037
Telephone: (202) 452-4200.

## CRYST

### Scope:

The Cambridge Crystallographic Data base (CRYST) comprises files of bibliographic, chemical connectivity and numeric structural data for organics, organometallics, and metal complexes studies by X-ray and neutron diffraction. The files, covering the literature from 1935 and maintained on a current basis, presently contain information on some 25,000 structural studies. Certain categories of information, particularly bibliographic, are disseminated in printed form via the Molecular Structures and Dimensions series.

The data base currently available under the CRYST component of the Chemical Information System (CIS) has been derived directly from the Cambridge University Crystallographic Data Centre data base. Some 17,601 of the compounds in the CRYST data base have not undergone registry processing at the Chemical Abstracts Service to create the corresponding (SANSS) data base. Of the 17601 items, some 1,135 were considered to be non-registrable. The remaining 16,466 items resulted in the identification of the 14,860 unique compounds in the SANSS collection. When displaying compounds retrieved from this collection, local identifiers will be cited in terms of the registry number with a two digit sub-identifier suffix. These numbers will serve as the identifiers for the compounds in the CRYST system when the CRYST and SANSS are automatically interfaced in the near future. (See SANSS).

### Access:

CRYST is available through the Chemical Information System (CIS). For information on CIS, consult Appendix A.

## CTCP

### Scope:

The Clinical Toxicology of Commercial Products (CTCP) Trade Name Data base is an online, interactive data base containing formulations and related information obtained from manufacturers and marketers for 27,000 commercial products.

Products having information in the data base are those most frequently involved in accidental or suicidial poisoning episodes. Included in each product record are product trade names, primary use, usage index terms, manufacturer or marketer-distributer identification, toxicity ratings, product formulations, Chemical Abstracts Service (CAS) Registry number, and file management information. The data base is primarily searchable by trade names, manufacturers, ingredient names, CAS Registry Numbers, and product use classifications. Output may be in several forms: numerical counts of productions (postings): lists, such as trade names for products containing a chemical (ingredient); or full formulation record descriptions.

### Access:

CTCP Trade Name Data Base is actively maintained by and is accessible through the Department of Pharmacology and Toxicology, University of Rochester Medical Center.

The CTCP Trade Name Data Base in derived from Section V, "Trade Name Index" of the book, Clinical Toxicology of Commercial Products and from the "Bulletin of Supplementary Material: Clinical Toxicology of Commercial Products." This monthly bulletin updates Section V of the book. The bulletin is available on a subscription basis from the University of Rochester. CTCP is available online from the Chemical Information System (CIS). Consult Appendix A. Information on bulletin subscription may be obtained from:

Ms. Jean Braddock
Department of Pharmacology and Toxicology
University of Rochester
Rochester, N.Y. 14624

## CURR/CONT

**Scope:**

Current Contents (CURR/CONT) is a series of weekly title listing summaries covering a total of nearly 7,000 journals. The seven weekly listings cover the following areas:

- Clinical Practice
- Life Sciences
- Agriculture, Biology and Environmental Sciences
- Engineering Technology and Applied Sciences
- Physical, Chemical and Earth Sciences
- Social and Behavioral Sciences
- Arts and Humanities

For each citation, the issue provides:

- Journal Accession Number
- Journal Title
- Language ID
- Journal Citation
- Author

A separate author address index locates the author for consultation.

**Access:**

Access is by subscription from:

University Science Center
3501 Market Street
Philadelphia, Pennsylvania 19104
(215) 386-0100

## DCP

Scope:

The Directory of Chemical Producers: United States of America (DCP) is an annually published book with two supplements per year. It provides ready references to commerical chemical manufacturers and products produced in the U.S.A. Commercial chemicals are defined as those produced in excess of 1,000 pounds or $1,000 value per year. Alphabetical listings of products, companies, and regions by zip codes provide access to manufacturer names, locations, and products. Supplemental information, such as annual capacity volumes and company relationships, is frequently included.

Data contained in the Directory are obtained from questionnaires returned from manufacturers, technical and trade journals, other contacts with manufacturers, and research. Sixteen hundred companies, representing 4,300 plant sites producing 10,000 chemicals, are reported in the volume. Each annual issue of the book contains only one year's data. The book has been published since 1961.

Access:

The Directory of Chemical Producers: United States of America is disseminated and produced by:

Chemical Marketing Research Center,
Chemical Industries Division
SRI International, Menlo Park, California 94025
Telephone: (415) 326-6000.

## EADS

Scope:

The Environmental Assessment Data System (EADS) is a comprehensive system of computerized data bases that describes energy systems, industrial processes, control technologies, and process discharges. The EADS is also a protocol for data analysis and evaluation that allows users to make consistent and meaningful interpretations of the data collected and reported. The EADS protocol may be applied to any type of sampling and analysis activity in which discrete samples are collected. The EADS is the only EPA computerized data base that is fully integrated across media.

The EADS is composed of five data bases for multimedia product, process, or waste streams that are supported by a variety of reference data bases and user output programs. The four sampling and analysis (S&A) data bases now in operation are the:

- Fine Particle Emissions Information System (FPEIS),
- Gaseous Emissions Data System (GEDS),
- Liquid Effluents Data System (LEDS), and
- Solid Discharge Data System (SDDS).

A fifth S&A data base is presently being developed that will report multimedia fugitive emissions data. A separate data system is needed because of the special nature of the data (per test) generated by fugitive emissions testings.

EADS was developed for four primary reasons:

- to provide a comprehensive and diverse repository for multimedia environmental sampling and analysis data and to consolidate that data in a central location where they are easily available to the user community;
- to provide a standardized and uniform protocol for reporting sampling and analysis data;
- to supply current sampling and analysis data for evaluation by the user community and to provide standard methods for the retrieval and analysis of that data; and
- to document the quality of the data reported.

The EADS is a user-oriented system. EADS may be retrieved either by direct computer access to the data base and its user program library or by written or verbal request to the EADS Program Manager. Data from the EADS have been used to model process engineering emissions, to design and evaluate control technology, to provide a technical basis for policy decisions by EPA and several states, as input to risk assessment studies, and many other applications. The EADS recognizes the sensitive nature of some stationary source emissions data and has a special feature which is designed to protect confidential or proprietary source data. If utilized, EPA will have no knowledge whatsoever of the identity of the source. Confidentiality has already been used extensively and has been a great aid in obtaining data which probably would not have been available to EPA otherwise.

The EADS user community is a diverse group that represents EPA, other government agencies (both Federal and state), academia, and private industry. Principal among the EPA users are EPA contractors engaged in R&D and program office-related studies. The EADS has been used by TERRL, OAQPS, OWRS, OPTS, and OSW within EPA, and by Environment-Canada, the State of California Air Resources Board (CARB), and others.

The EADS data is collected to enable information decisions regarding future engineering R&D activities and to realize the maximum return on the R&D funding invested. IERL/RTP requires all S&A data generated by the Laboratory to be entered into the EADS. OAQPS has directed its contractors to submit all new particle sizing test data for entry to the FPEIS. Effluent Guidelines Division, OWRS, has provided effluent data to the LEDS data base through the Treatability Committee. In behalf of EGD and the Treatability Committee, a contractor-developed wastewater treatement system design/cost model has been converted to a EPA computer as part of the EADS protocol for use by EPA and State NPDES permit writers. The Municipal Environmental Research Laboratory has submitted to the EADS test data from public-owned treatment works (POTW's). The EADS/LEDS data base was modified during 1980 expressly for MERL to accomodate POTW data as well as other wastewater collection system data. Discussions have been held with OSW regarding waste site remedial action monitoring needs. The EADS presently contains data on direct incineration and on co-firing of waste with fossil fuels in boilers and can accomodate all present incineration testing data from both IERL/CIN and OSW.

Access:

EADS is available either by direct computer access to the data base and its user program library or by written or verbal request to:

Mr. Gary Johnson
U.S. EPA, (MD-62)
Research Triangle Park, NC 27711 (919) 541-7612

The EADS user guides contain instructions for users with UNIVAC 2000 account numbers.

## EIS INDUSTRIAL PLANTS

### Scope:

The EIS (Economic Information Systems) INDUSTRIAL PLANTS data base offers immediate answers to a broad range of questions concerning the U.S. industrial economy. The EIS INDUSTRIAL PLANTS data base includes current information on 67,000 industrial firms with establishments of 20 or more employees in the United States and/or annual sales of approximately one-half million dollars or more. The establishments included account for approximately 90 percent of the total value of U.S. industrial activities. Each record contains the plant name, location, telephone number, prinicipal product (4- or 5-digit SIC), annual sales, estimated share of the market, employment level, and parent company information. Information can be retrieved in several ways. Users can query the system for the address and telephone number of plants conforming to specified constraints on geographic location, industry, and size. Queries can also be made on the basis of specified firm names to retrieve sales and employment data for any large public or private manufacturing or mining company. The EIS INDUSTRIAL PLANTS file also permits the user to frame questions within the limits of any desired U.S. Census Bureau region, state, county, city, zip code, Business Economic Area (BEA), and parent company state, city, zip code (or combinations thereof). Resultant records may be sorted in order of sales or in estimated share of the market. Data are generated from business magazines, trade journals, state and industrial directories, corporate financial reports, and Census Bureau statistics. Also included are thousands of inputs received directly from companies and corporations. The file is updated quarterly.

### Access:

EIS INDUSTRIAL PLANTS is available through the DIALOG information retrieval system. Consult Appendix A.

## EIS NONMANUFACTURING ESTABLISHMENTS

Scope:

The EIS (Economic Information Systems) NONMANUFACTURING ESTABLISHMENTS data base contains current economic information on nonmanufacturing establishments and firms employing 20 or more people in the contiguous United States. The establishments included account for approximately 85 percent of industry's sales in such sectors as agriculture, construction, transportation, utilities, communications, trade and commerce, finance, services, etc. Each record contains the establishment name, location, telephone number, principal product, annual sales, estimated share of the market, employment level, and parent company information. The file is updated quarterly.

Data are obtained from business magazines, trade journals, state and industrial directories, corporate financial records, Census Bureau statistics, and input received directly from companies and corporations.

Access:

EIS NONMANUFACTURING ESTABLISHMENTS is available through the DIALOG information retrieval system. Consult Appendix A.

# EMIC

## Scope:

The Environmental Mutagen Information Center (EMIC) specializes in the dissemination of information that is relevant to the subject of environmental mutagenesis. This information is contained in two similar on-line data bases: EMIC, which is a subfile of the National Library of Medicine (NLM) MEDLARS TOXLINE system, and EMI, a file of the Department of Energy RECON system at Oak Ridge, Tennessee. EMIC uses these on-line data bases and in-house subject expertise to answer user queries. EMIC is concerned with reported testing of chemical substances and other environmental agents for mutagenicity, excluding for the most part papers dealing solely with UV and ionizing radiation. The EMIC data base presently contains over 13,000 agents. EMIC services consist of answering written or telephoned queries regarding mutagenicity by providing searches of the EMIC data base. Searches and services are free, except for several small classes of users. Queries and requests for services outside of EMIC's capabilities or subject area are usually referred to other information centers.

Bibliographic citations are available using controlled vocabulary terms such as:

- Agent
- Tissue Culture
- Taxonomic Name
- Test Name
- CAS Registry Number
- EMIC Accession Number
- Translation
- Publication Type
- Citation
- Source
- Author
- Title
- Assay Systems

## Access:

This information base is available as EMIC through the MEDLARS TOXLINE system of the NLM Regional Libraries (Consult Appendix A), as EMI through the RECON system of the Department of Energy at Oak Ridge, Tennessee, or directly from EMIC at:

Oak Ridge National Laboratory
Building 9224
Oak Ridge, Tennessee 37830
(615) 574-7871

## ENERGYLINE

Scope:

ENERGYLINE, produced by the Environmental Information Center, provides broad coverage of scientific, engineering, political and socioeconomic aspects of energy policy, resources, conversion, and consumption. Its interdisciplinary approach offers access to over 5,000 international primary and secondary sources. ENERGYLINE corresponds to energy materials from Environment Abstracts from 1971 through 1975 and all materials from Energy Information Abstracts, beginning in January 1976. ENERGYLINE reports on a wide range of topics, including such areas as the following:

- Economics
- Policy and Planning
- Research and Development
- Resources and Reserves
- Unconventional Resources
- Solar Energy
- Fuel Processing and Transport
- Electric Power Generation
- Nuclear Resources and Power
- Thermonuclear Power
- Consumption and Conservation
- Environmental Impact

Access:

ENERGYLINE is available through the DIALOG and ORBIT information retrieval systems. Consult Appendix A.

## ENVIROLINE

### Scope:

ENVIROLINE contains abstracts and citations from Environment Abstracts, a worldwide publication produced by the Environment Information Center. This reference source provides interdisciplinary scientific, technical, and socioeconomic coverage of the major English-language and the more important non-English language environment and resources literature. Environment Abstracts incudes approximately 10,000 unique abstracts per year drawn from over 5,000 periodicals, symposia, governmental and instutional reports, and other primary and secondary sources.

The following general subjects are covered:

- Air Pollution
- Chemical and Biological Contamination
- Energy
- Environmental Design and Urban Ecology
- Environmental Education
- Foods and Drugs
- General Environmental
- General International Environmental
- Land Use and Misuse
- Noise Pollution
- Non-Renewable Resources
- Oceans and Estuaries
- Population Planning and Control
- Radiological Contamination
- Renewable Resources - Terrestrial
- Renewable Resources - Water
- Solid Waste
- Transportation
- Water Pollution
- Weather Modification, Geophysical Change
- Wildlife

### Access:

ENVIRONLINE is available through the DIALOG and ORBIT information retrieval systems. Consult Appendix A. To obtain the printed version, contact:

Environmental Information Center, Inc.
292 Madison Avenue
New York, NY 10017
(212) 949-9494

## EPACASR

### Scope:

The Chemical Activity Status Report (EPACASR) is a guide to Agency activities relating to chemical substances. It is now available to EPA users as a publication. EPACASR was developed with the assistance of the Agency program offices and includes data on chemical regulations, technical assistance information, preregulatory assessments, chemical and biological testing and monitoring programs, and labeling requirements - both completed and in progress. For any given chemical, EPACASR can be used to determine:

- who regulates the chemical, is considering regulation of the chemical, or is assessing the chemical, or
- what scientific/technical work has been done in assessing the chemical,
- the reasons why the work was performed (e.g., carcinogenicity, environmental effects, other health effects, etc.)
- who may be contacted for further information about the chemical activity.

Searches of the interactive data base can be made by the Chemical Information and Analysis Unit (CIAU) at this time. EPACASR will, in the near future, be made available to EPA users. Others may purchase the tapes of the data base (updated semiannually) through NTIS.

### Access:

Further information about EPACASR and its contents can be obtained from:

E. T. Merrick or Pat Grim
Chemical Information and Analysis Group
Chemical Coordination Staff
U.S. Environmental Protection Agency
Washington, D.C. 20460
(202) 382-3415 or 382-3394

## ETIC

### Scope:

The Environmental Teratology Information Center (ETIC) specializes in the dissemination of information related to the evaluation of chemical, biological, and physical agents for teratogenic activity. This information is contained in two similar on-line data bases: ETIC, which is a subfile of the NLM MEDLARS TOXLINE system (consult Appendix A) and ETI, a file of the Department of Energy RECON system at Oakridge, Tennessee. ETIC uses these on-line data bases and inhouse subject expertise and also makes referrals to expert consultants to answer user queries.

ETIC's information base is derived largely from reported testing which involves the administration of a chemical agent to a pregnant animal and subsequent examination of the offspring at or near birth for structural or functional anomalies and from reports implicating agents which produce defects in man. Additional references are obtained from the open literature on testing and evaluation of chemical, biological and physical agents and on dietary deficiencies in warm-blooded animals. There are 25,000 entries dating back to 1893 describing 6,000 suspect or known teratogens. The file provides citations. About 3,000 citations are added per year.

### Access:

This information base is accessible as ETIC through the MEDLARS TOXLINE system of the NLM Regional Libraries, as ETI through the RECON system of the Department of Energy at Oak Ridge, Tennessee, or directly from ETIC at:

NIEHS
P.O. Box 12233
Research Triangle Park, NC 27709
Telephone: (919) 541-3418.

## FEDERAL INDEX

Scope:

FEDERAL INDEX provides access to information on Federal government activities including hearings, speeches, bill introductions, roll calls, and other activities of the U.S. Congress; existing and proposed rules and regulations, notices, hearings, contract awards, and other activities of the executive departments and agencies; presidential views, proclamations, final actions on legislation, and other activities; and court decisions and other judicial activities. The online file corresponds to the hardcopy *Federal Index*.

FEDERAL INDEX is an interdisciplinary source of information on trends and developments in Washington. Areas covered include:

- Current Events
- Finance
- Government
- Banking
- Politics
- International Relations
- Business
- Trade
- Legislation
- Diplomacy

Access:

FEDERAL INDEX is available through the DIALOG information retrieval system. For information on DIALOG, consult Appendix A.

## FOODS ADLIBRA

Scope:

The foods Adlibra bibliographic data base covers all facets of the food industry and other industries related to agriculture. Areas covered incude:

- New Products
- Imports
- Management and Marketing
- Food Service Operators
- Processors
- Retailers
- Manufacturing and Production of Foodstuffs
- Brokers
- Research and Technology Developments
- Equipment
- Nutrition
- Toxicology
- Patents
- Engineering

Sources of data are mostly trade periodicals, technical journals, and patents. The file is updated monthly.

Access:

FOODS ADLIBRA is available through the DIALOG information retrieval system. Consult Appendix A.

## FRSS

**Scope:**

The Federal Register Search System (FRSS) provides a cross reference to all of the citations relating to a chemical or class of chemicals cited in the Federal Register since January 1, 1978. The Federal Register title, part, subpart, and a short description of the Federal Register notice or regulation are included for each of more than 100,000 citations. The data base is updated weekly.

**Access:**

FRSS is available through the Chemical Information System (CIS). Consult Appendix A.

# FSTA

## Scope:

Food Science and Technology Abstracts (FSTA) provides access to research and new development literature in the areas related to food science and technology. Basic allied disciplines such as chemistry, physics, biochemistry, and agriculture are covered as well. Fringe areas, such as home economics and engineering, are included when relevant to food science.

FSTA reports on a wide range of topics, including such areas as the following:

- Basic Food Science
- Food Microbiology
- Food Hygiene
- Food Engineering
- Food Packaging
- Commodity Technologies
- Beverages
- Food Additives
- Fruits, Vegetables, Nuts
- Sugars
- Cocoa and Chocolate Products
- Fats, Oils
- Fish
- Dairy Products
- Meat, Poultry, Game
- Food Laws, Regulations

Sources of information include 1350 journals from over 74 countries, patents from over 20 countries, and books in any language. FSTA is updated monthly.

## Access:

FSTA is available through the DIALOG and ORBIT information retrieval systems. Consult Appendix A.

# HMSM

## Scope:

The Hazardous Materials Spill Monitoring - Safety Handbook and Chemical Hazard Guide (HMSM) is an EPA generated manual intended to provide information on how to prevent accidental exposure to hazardous materials and on first-aid measures in the event of an accident.

The compounds in the HMSM correspond to those in the Chemical Spills data base that was compiled by the Water and Land Quality Branch, Monitoring Operations Divisions, Environmental Monitoring and Support Laboratory of the U.S. Environmental Protection Agency. That data base incudes all chemicals tentatively designated as hazardous by the EPA in the Federal Register, Vol. 39, No. 169, Aug. 22, 1974, all chemicals in the U.S. Coast Guard "CHRIS" manuals, Jan. 1974, and those hazardous materials reported as spilled during the period 1970-1974. The manual indicates, for each compound, recommended safety procedures for entering a spill area, the principal hazards associated with a spill, and the recommended immediate action to be taken (prior to the arrival of medical aid) in the event of exposure. Compounds are indexed in this manual by name and CAS Registry Number; common synonyms as well as available trade names are included. A priority listing of the compounds based upon their hazard ratings and reported spill frequency is also included.

## Access:

For more information on this manual, contact:

Llewellyn R. Williams, Ph.D.
Biological Quality Assurance Program Manager
Quality Assurance Division
U.S. Environmental Protection Agency
Environmental Monitoring Systems Lab
P.O. Box 15027
Las Vegas, Nevada 89114
Telephone: (702) 798-2138.

## IEDC

### Scope:

The Ion Energetics Data Center (IEDC) at the National Bureau of Standards offers a data base of critically evaluated ion energetics measurements. A comprehensive publication of these evaluated data and associated measurements, references, and critical commentary has been published (H.M. Rosenstock, K. Draxl, B. Steiner, and J.T. Herron, "Energetics of Gaseous Ions" J. Phys. Chem. Ref. Data 6, Supplement 1 (1977)).

A major component of this evaluated data base is first ionization potentials of over 3,100 neutral organic and inorganic species, and heats of formation of many precursors. The ionization potential measurements are based on all pertinent techniques including spectroscopy, photoelectron spectroscopy, photoionization, electron impact, and other less widely used techniques.

### Access:

Further information regarding IEDC can be obtained by contacting:

Dr. Henry M. Rosenstock
Chemical Thermodynamics Division 543
National Bureau of Standards
Washington, D.C. 20234
(301) 921-2793

# IFIS

## Scope:

The Industry File Index System (IFIS) is a data base that incorporates industry, chemical, and EPA regulatory information. The IFIS was developed to provide a concise description of industries and industry-specific regulation of chemicals. The IFIS is able to provide a user with information such as:

- what regulations exist for a particular industry or what industries could be affected by a regulation under consideration;
- what chemicals used by an industry are or are not regulated;
- in which industry subcategories certain chemicals are used; and
- potential uses of chemicals.

Other data fields within IFIS include CAS number (and SEQ number), element code (from the periodic table; this allows searches for a metal and its salts without needing all the necessary CAS numbers), chemical regulatory status (explicitly or implicitly regulated, not regulated, or unknown), SIC codes, regulatory authority (e.g., Clean Water Act), regulatory status (proposed, interim final or final), section(s) of statute, precision of quantification, media (medial directly affected by regulation), type of technology (BPT, NSPS, etc.), industrial subcategories where applicable, references, Federal Register and Code of Federal Regulations citations, descriptors (a general field used to provide a variety of information about a chemical or pollutant), and uses.

The information contained in this data base was extracted from all the EPA regulatory support documents, to the extent they were available, that were obtained from the respective EPA Program Offices. The Code of Federal Regulations and the Federal Register were also used.

## Access:

The data base is currently located on the EPA UNIVAC in Research Triangle Park and can be accessed by the System 2000 Data Base Management System.

For further information about IFIS, its contents and report retrievals, contact:

Daryl L. Kaufman
Chemical Information and Analysis Unit
USA. EPA
Washington,D.C. 20460
(202) 382-3399

## INSPEC

### Scope:

INSPEC provides worldwide coverage of the literature in the fields of physics, electrical engineering, electronics, computers, and control engineering. Foreign-language source material is also included, but it is abstracted and indexed in English. The data base includes *Physics Abstracts*, *Electrical and Electronics Abstracts*, and *Computer Control Abstracts*.

The principal subject areas are indicated below:

- Atomic and Molecular Physics
- Computer Programming and Applications
- Computer Systems and Equipment
- Condensed Matter: Electrical Magnetic, and Optical Properties
- Condensed Matter: Structure, Thermal, and Mechanical Properties
- Control Technology
- Electrical and Magnetic
- Devices
- Electromagnetics, Optics, and Circuits
- Gasses, Fluid Dynamics and Plasmas
- General Topics
- Elementary Particle Physics
- Instruments and Measurement
- Interdisciplinary Subjects
- Information/Communication Science and Engineering
- Mathematics and Mathematical Physics
- Nuclear Physics
- Power Systems and Applications

### Access:

INSPEC is available through the DIALOG and ORBIT information retrieval systems. Consult Appendix A.

## IPC CHEMICAL DATA BASE

Scope:

The IPC Chemical Data Base provides worldwide coverage of production and trade of industrial chemicals and current and planned plant capacities. It may be used to find manufacturing and production data such as plant locations, capacities, actual production figures, processes, and feedstocks. Commerce and trade information, such as licensors, contractors, imports, exports, and trade breakdown for countries or origin and destination is also available. The data base is searchable only by an arbitrary IPC-assigned product code and an IPC-assigned country code.

The file currently contains more than 100,000 records derived from such sources as the United Nations publication, Yearbook of Industrial Statistics; CMEA Year Book; national production and trade statistics of various countries; worldwide publications; press releases; reference lists from chemical plant contractors, engineers, and licensors; company reports; and direct on-going verification by chemical companies. The file is updated monthly.

Access:

IPC CHEMICAL DATA BASE is available through:

ADP Network Services, Inc.
175 Jackson Plaza
Ann Arbor, Michigan
Telephone: (313) 769-6800.

## ISMEC

### Scope:

The ISMEC (Information Service in Mechanical Engineering) data base corresponds to the biweekly printed ISMEC Bulletin. ISMEC indexes significant articles in all aspects of mechanical engineering, production engineering, and engineering management from approximately 250 journals published throughout the world. In addition, books, reports and conference proceedings are indexed. These sources are further supplemented by relevant material from more than 2,000 periodicals in physics and engineering that are received. The primary emphasis is on comprehensive coverage of leading international journals and conferences on mechanical engineering subjects.

The principal subject areas include the following:

- Management and Production
- Measurement and Control
- Mechanics, Materials, and Devices
- Mechanical Engineering and Natural Resources
- Production Processes, Tools, and Equipment
- Energy and Power
- Transport and Handling
- Mechanical Engineering in Science and Engineering
- Other Applications of Mechanical Engineering

### Access:

ISMEC is available through the DIALOG and ORBIT information retrieval systems. Consult Appendix A.

# KIRK-OTHMER

## Scope:

The Kirk-Othmer Encyclopedia of Chemical Technology is a reference encyclopedia which covers virtually all major aspects of chemical technology and related topics: industrial products, natural resources, manufacturing processes, and chemical uses. The third edition will include topics such as energy, health, safety, toxicology, new materials, polymer and plastics technology, inorganic and solid-state chemistry, composite materials, fermentation and enzymes, coatings, pharmaceuticals, and surfactant technology.

Second edition volumes were sequentially published from 1963-1972. In the 25 volumes of the third edition, approximately 1,000 articles written by subject experts will appear. The third edition volumes are being issued at a rate of four per year; completion of the set is expected in early 1984.

## Access:

The Kirk-Othmer Encyclopedia of Chemical Technology is published by:

John Wiley and Sons, Inc.
Wiley-Interscience Division
605 3rd Avenue
New York, NY 10158
Telephone: (212) 850-6000.

## MEDLINE

### Scope:

MEDLINE is a medical bibliographic data base which indexes 3,000 medical journals for the period starting January 1977 to the present. The annual entry rate is 380,000 to 630,000 articles cited per year and the total file at present is over 2,000,000 entries concerning medical science. Health effects due to chemical exposure are included. Index Medicus, the printed equivalent to MEDLINE, goes back to January 1966. Search terms used are taken from a Medical Subject Heading (MeSH) thesaurus.

### Access:

MEDLINE is a component of the MEDLARS (Medical Literature Analysis and Retrieval System). Consult Appendix A.

Medline is now available online back to 1966.

# MERCK INDEX

## Scope:

*The Merck Index: An Encyclopedia of Chemicals and Drugs*, is a one-volume reference book containing nearly 10,000 monographs and over 30 tables presenting information on chemical substances. It includes 8,000 structural displays of life formulas and 50,000 chemical synonyms. *The Index* has been published since 1889 and is currently in its ninth edition. A tenth edition will be available in September, 1983.

*The Merck Index* describes the preparation and general chemical properties of compounds; correlates trivial, generic (drug), and chemical names with structures, trademarks, and company affiliations; and provides succinct information as to the use, principal pharmacological action, and toxicity of substances covered. The text of the book is organized into a main monographs section, tables, and indexes. Indexes of chemical formulas and chemical names provide access to the monographs. Over 30 tables provide chemical-related data.

The information descriptions for the 10,000 chemicals listed include:

- Monograph Number
- Title
- Chemical Abstracts Name(s)
- Alternative Names
- Structure
- Empirical Formula
- Molecular Weight
- Percentage Composition
- Caution
- Use
- Literature Reference
- Physical Data
- Derivatives
- Therapeutic Category (THERAP CAT)
- Therapeutic Category (Therap CAT/VET)
- Toxicity Data
- Human Toxicity

## Access:

The ninth edition of the *Merck Index* is currently out of stock. Purchase orders for the tenth edition, which will be available in September, 1983, should be directed to:

Merck and Company, Inc.
Publications Department
P.O. Box 2000
Rahway, New Jersey 07065
Telephone: (201) 574-5403.

## METADEX

### Scope:

The METADEX (Metal Abstracts/Alloys Index) data base, produced by the American Society for Metals (ASM) and the Metals Society (London), provides the most comprehensive coverage of international literature on the science of metallurgy. Included in this data base are Review of Metal Literature (1966-1967), Metals Abstracts (1968-present), and, since 1974, Alloys Index. Metals Abstracts includes about 30,000 citations each year from about 1,100 primary journal sources. Alloys Index supplements Metals Abstracts by providing access to the citations through commercial, numerical, and compositional alloy designations; specific metallic systems; and intermetallic compounds found within these systems. In addition to specialized topics (including specific alloy designations, intermetallic compounds, and metallurgical systems), six basic categories of metallurgy are covered:

- Materials
- Processes
- Properties
- Products
- Forms
- Influencing Factors

### Access:

METADEX is available both in hard-copy and on-line through the DIALOG information retrieval system. Consult Appendix A.

## MSSS

### Scope:

The Mass Spectral Search System (MSSS) is an outline, interactive data base available through the Chemical Information System (CIS). It contains over 30,000 searchable substances' spectra with references and over 60,000 bibliographic entries concerning mass spectrometry. Mass spectral, mass/charge, (M/E) values, and relative intensities, molecular weight, and molecular formula are included in the spectral subfile, as are Chemical Abstracts Service (CAS) Registry Numbers, CAS names, and a quality index rating for retrieved spectra. Mass Spectrometry bulletin bibliographic subfile includes author, year of publication, elements, and index terms. Pattern recognition-based searching capabilities may be applied to user input spectra or data base extant spectra. Following are MSSS online capabilities:

Mass spectral data has been incorporated into MSSS from a variety of sources: governmental agencies, reference books and collections, industry, and individual researchers. Data are reviewed and a spectral Quality Index assigned to each spectrum prior to incorporation into MSSS.

Offline Complete Spectrum Search (BATCH): A version of the complete spectrum search program KB; accepts input data and holds it until the search can be run in nonprime time.

Element Search (EIE): Accepts any atomic symbol and retrieves all bulletin indexed references to that element.

SPEC: Allows examination of any complete names spectrum.

General Index Search (INDEX): Searches the general index of the Mass Spectrometry Bulletin.

Complete Spectrum Search (KE): Permits the sequential comparison of unknown spectrum to each spectrum in the MSSS Data base or the user's own private mass spectral files.

Calculation of Isotopic Incorporation Levels (LAB): Accepts all or part of the mass spectrum of an isotopically labelled compound together with the same part of the mass spectrum of the corresponding unlabelled compound and uses these data to determine the mole fractions of all the isotopically labelled species in the former.

Metastable Ion Calculatory (META): Calculates the M/E values of the various metastable ions that correspond to a given parent/daughter pair.

Molecular Formula Search (MF): Permits the user to search for all mass spectra of compounds with a given molecular formula. (The option 'PF' permits searches for partial molecular fomulas.)

Calculate Formulas from Accurate Masses (MOLFOR): Accepts an accurately determined M/E value and calculates all possible atomic compositions that have approximately the same accurate mass.

Molecular Weight Search (MW): Searches for spectra of compounds by specified molecular weight.

Plot a Spectrum on a Graphic Device (PLOT): Plots a spectrum as a bar graph.

Peaks and Complete Molecular Formulas (PMF): Searches for all spectra containing given peaks and corresponding compounds with a specific molecular formula.

Peaks and Molecular Weight (PMW): Searches for all compounds having a given molecular weight and with specific peaks in their mass spectra.

Spectrum Similarity Calculation (SIM): The spectrum dissimilarity calculation permits the user to establish the quantitative dissimilarity between any two mass spectra. The spectra may both be from the data base, or one may be from the user's spectrum and the other a possible hit from the data base.

Spectrum Retrieval (SPEC): Uses the ID number of a mass spectrum (provided as a result of any search through the data base) to find and retrieve the complete spectrum in question.

Subject Search (SUBJECT): Allows a search through the cumulative subject index of the Mass Spectrometry Bulletin.

## Access:

MSSS is available through the Chemical Information System (CIS). For information about how to access CIS, consult Appendix A.

# NFPA

## Scope:

Hazardous Chemicals Data, compiled by the National Fire Prevention Association (NFPA), presents the most authoritative data available concerning hazardous substances. Substances are listed in order to make available information about hazardous properties and fire fighting phases to improve fire protection and prevention. If a chemical is omitted from the publication, it does not mean it is not hazardous. A chemical must meet one or more of the following criteria in order to be included:

- pose a health hazard of 2 or higher (based on scale of 0-4; 4 the most hazardous),
- have reactivity rating of 1 or higher (based on scale of 0-4; 4 the most hazardous),
- have unusual storage or fire fighting problems, and
- be hazardous when contaminated with other chemicals.

In this publication, the following specific types of information are provided for each chemical:

- Description
- Fire and Explosion Hazards
- Life Hazard
- Fire Fighting Phases
- Usual Shipping Containers
- Storage
- Remarks
- Flash Point
- Flammability

## Access:

Hazardous Chemicals Data, publication number NFPA-49, may be purchased from:

NFPA
Batterymarch Park
Quincy, Massachusetts 02269
Telephone: (617) 328-9290.

# NIOSHTIC

## Scope:

The NIOSHTIC data base is an online, interactive bibliographic data base generated and maintained by the National Institute for Occupational Safety and Health Technical Information Center (NIOSHTIC) to support NIOSH interests in research and the documentation of recommended occupational safety standards.

The NIOSHTIC data base contains over 70,000 document records concerning all aspects of occupational safety and health, including industrial hygiene, environmental health, industrial medicine, sampling methodology, analytical chemistry, environmental engineering, physiology, behavioral psychology, epidemiology, and many other fields. Records contain bibliographic citations, indexing terms, and abstracts. Approximately 75 percent of the documents referenced in the data base are drawn from the open literature, the remainder originating as NIOSH-published documents and unpublished research reports.

## Access:

To access NIOSHTIC, call Dr. Allen Susten, NIOSH, Cincinnati, Ohio (513) 684-6474.

# NOAA DATA BASES

## Scope:

The National Oceanic and Atomospheric Administration's Environmental Science Information Center (ESIC) collects, analyzes, and disseminates information about the atmosphere, Earth, oceans, Sun, and space. The Environmental Data Index has been developed, and access to other data bases obtained, to provide a "one-stop" service for computerized searching of references to NOAA's areas of interest. This service is carried out by the NOAA Environmental Data and Information Service.

## Access:

The Environmental Science Information Center Provides searches from:

- DIALOG
- ORBIT
- MEDLARS (National Library of Medicine)
- National Oceanograhic Data Center
  - Ocean bottom photo file
  - Index of subsurface ocean measurements
  - Bathythermograph files
  - Aquaculture file
- FAO/UN Aquatic Sciences Bibliographic File
- Biological Abstracts
- Engineering Index
- ENVIROLINE, MEDLINE
- Oceanic Abstracts
- Pollution Abstracts

Searches can be requested in person, by telephone, or by submission of NOAA Form 24-21. NOAA personnel can contact any of the offices listed below; others should direct their requests to the first office listed below, except for ENDEX searches, which should be directed to the National Oceanographic Data Center.

Environmental Science Information Center
User Services and Branch, D822
NOAA Library and Information Services Division
6009 Executive Boulevard
Rockville, Maryland 20852 (301) 443-8330

Environmental Research Laboratories
Library Services, R51
325 Broadway
Boulder, CO 80302 (301) 499-1000 ext. 3271
FTS: 323-3271

National Oceanographic Data Center
Data Index Branch, D782
Room 276, Page Building #1
2001 Wisconsin Avenue, N.W.
Washington, D.C. 20235 (202) 634-7298

National Climatic Center
User Services Branch, D542x2
Federal Building
Asheville, NC 28801 (704) 258-2850 ext. 677
FTS: 672-0677

NOAA Library and Information Services Division
Environmental Science Information Center
Silver Spring Center, D8224
816 Gramax Building
8060 13th Street
Silver Spring, MD 20235 (301) 427-7800

Northwest and Alaska Fisheries Center
Library
Kodiak Facility
P.O. Box 1638
Kodiak, Alaska 99615 (907) 487-4961
FTS: Dial 399-0151, ask operator
for commercial number

Northeast Fisheries Center
Library
Woods Hole, MA 02543 (617) 548-5123, ext. 60

Great Lakes Environmental Research Laboratory
Library
2300 Washtenaw Avenue
Ann Arbor, MI 48104 (313) 769-7203
FTS: 378-2242

NOAA Library and Information Services Division
Environmental Science Information Center
Miami Center
15 Rickenbacker Causeway
Miami, FL 33146 FTS: 350-1330

Center for Climatic and Environmental Assessment
Federal Building, Room 116
Columbia, MO 65201 (314) 442-2271, ext. 3261

Southeast Fisheries Center
Beaufort Laboratory
Beaufort, NC 28516 (919) 728-4595

Southwest Fisheries Center
Honolulu Laboratory
2570 Dole Street
P.O. Box 3830
Honolulu, HI 96812 FTS: 556-0220, ask for
(808) 946-2181

Northwest and Alaska Fisheries Center
Auke Bay Fisheries Laboratory
P.O. Box 155
Auke Bay, Alaska 99821 (907) 789-7231

National Ocean Survey
Physical Science Services Branch
Map Library and Information Service
Room 709, WSC#1
6001 Executive Boulevard
Rockville, MD 20852 (301) 443-8031

National Ocean Survey
Pacific Marine Center
1801 Fairview Avenue East
Seattle, WA 98102 (206) 442-7657

## NOES

### Scope:

The National Occupational Exposure Survey (NOES) will update the two year National Occupational Hazard Survey (NOHS) that was initiated in 1972. It is intended to describe the health and safety conditions in the American work environment and, more specifically, to determine the extent of worker exposure to chemical and physical agents. The businesses participating in the survey were selected by the Bureau of Labor Statistics and consisted of approximately 5,000 establishments in 67 metropolitan areas throughout the United States. This sample was chosen to be representative of all non-agricultural businesses covered under the Occupational Safety and Health Act of 1970. Each of the selected business establishments was visited by a member of a professionally trained survey team, where the survey itself consisted of two major parts. In the first part, appropriate management personnel were interviewed, using as the basis of the interview a standard set of 50 questions regarding facility policies and conditions relevant to employee safety and health. In the second part, a walkthrough investigation of the facility was conducted. In this walkthrough, potential hazards were noted, the occupational titles of the people exposed were coded, and the intended control procedures utilized in connection with the hazard were recorded. The three volume NIOSH publication, the National Occupational Exposure Survey, will describe the survey itself (Volume I - Survey Manual) and the subsequent data base and retrieval system development (Volume II - Data Editing and Data base Development), and it will provide tabular compilations of some of the data base statistics (Volume III - Survey Analysis and Supplemental Tables).

### Access:

Single copies of the published NOHS documents can be obtained by sending a self-addressed mailing label to:

Publications Dissemination
Division of Technical Services
NIOSH
4676 Columbia Parkway
Cincinnati, OH 45226

For additional information concerning the contents of the NOES or the earlier NOHS, contact:

Mr. Joseph Seta
Surveillance Branch (F3)
National Institute for Occupational Safety and Health
4676 Columbia Parkway
Cincinnati, OH 45226 (513) 684-2706

## NSF-HCL

### Scope:

The National Science Foundation Hazardous Chemicals List (NSF-HCL) lists organic compounds which may be of special interest with respect to possible environmental and/or health effects. The primary purpose of this list is to place in the hands of NSF and other interested organizations a list of compounds that could help guide future environmental and health research.

### Access:

For a more detailed description of this project, see "Final Report of NSF Workshop Panel to Select Organic Compounds Hazardous to the Environment," October 1975. Two appendices in that report are of particular interest: Appendix IV A, where the original chemicals are ranked by release rate, and Appendix V, where the final list of 80 chemicals is ranked by order of interest.

An additional four volumes of information on this project are available through the National Technical Information Service (Research Program on Hazard Priority Ranking of Manufactured Chemicals, Phase II Final Report, SRI, ECU 3386).

## NSRDS

### Scope:

Reliable reporting of physical and chemical properties related to toxic chemicals is essential to environmental assessment and chemical spill or waste regulation and management.

The National Standard Reference Data System (NSRDS) was established in 1963 as a means of coordinating, on a national scale, the production and dissemination of critically evaluated reference data in the physical sciences. Under the Standard Reference Data Act (Public Law 90-396), the National Bureau of Standards (NBS) of the U.S. Department of Commerce has the primary responsibility in the Federal Government for providing reliable scientific and technical reference data. The Office of Standard Reference Data (OSRD) of NBS coordinates a complex of data evaluation centers that are located in university, industrial, and other Government laboratories as well as within the NBS. These centers are engaged in the compilation and critical evaluation of numerical data on physical and chemical properties retrieved from the world scientific literature.

The primary focus of the NSRDS is on well-defined physical and chemical properties of well-characterized materials or systems. An effort is made to assess the accuracy of data reported in the primary research literature and to prepare compilations of critically evaluated data that will serve as reliable and convenient reference sources for the scientific and technical community.

NSRDS publications and data bases include:

- the Journal of Physical and Chemical Reference Data containing standard data developments;
- a series of data monographs that report NBS test results;
- data from other sources related to properties of chemicals (these include Russian translations);
- the NBS/NIH/EPA/MSDC Mass Spectral Data base, which contains the mass spectra of thousands of compounds;
- the Thermophysical Properties of Hydrocarbons Mixtures data base;
- the NBS Chemical Thermodynamics Data base; and
- the NBS Crystal Indentification File data base.

### Access:

The NSRDS publications are available from a variety of sources. These include the American Chemical Society (ACS); American Institute of Physics (AIP); the Superintendent of Documents, U.S. Government Printing Office (GPO); the National Technical Information Service (NTIS); the OSRD; as well as private publishers and societies.

All four NSRDS data bases are available on mag tape through:

OSRD Reference Center
Rockville, MD
Telephone: (301) 921-2228.

The Mass Spectral Data base and the Crystal Identification File are also currently available through the CIS information retrieval system as the Mass Spectral Search System (MSSS) and the NBS Crystal Data Identification File (XTAL), respectively; the other two data bases will soon become available on the CIS system. Consult Appendix A.

## NTIS

Scope:

The National Technical Information Service (NTIS) data base consists of government-sponsored research, development, and engineering reports plus analyses, journal articles, and translations prepared by Federal agencies, their contractors or grantees. NTIS also covers federally generated machine-readable files and software as well as U.S. Government inventions available for licensing. It is the means through which unclassified, unlimited distribution reports are made available to the public.

The NTIS data base includes material from both the "hard" and "soft" sciences and includes topics of immediate broad interest. These include: environmental pollution and control, energy conservation, technology transfer, health planning, societal problems, and urban and regional planning. An outline of the subject coverage of this file is shown below:

- Administration
- Aeronautics and Aerodynamics
- Agriculture and Food
- Astronomy and Astrophysics
- Behavior and Society
- Biomedical Technology and Engineering
- Building Technology
- Business and Economics
- Chemistry
- Civil Engineering
- Communication
- Computers, Control and Information Theory
- Electrotechnology
- Energy
- Environmental Pollution and Control
- Health Planning
- Industrial and Mechanical Engineering
- Library and Information Sciences
- Materials Sciences
- Medicine and Biology
- Mathematical Sciences
- Military Sciences
- Natural Resources and Earth Sciences
- Navigation, Guidance and Control
- Nuclear Science and Technology
- Physics
- Space Technology
- Transportation
- Urban and Regional Technology

Access:

NTIS is available through the DIALOG and ORBIT information retrieval systems. For information about how to access DIALOG and ORBIT, consult Appendix A.

NTIS may be contacted directly:

National Technical Information Service
U.S. Department of Commerce
5285 Port Royal Road
Springfield, Virginia 22161 (703) 487-4630

## OA

### Scope:

OCEANIC ABSTRACTS (OA) organizes and indexes worldwide technical literature on marine related subjects. Its records cite journals, books, technical reports, conference proceedings, and government and trade publications.

Following are the major subject areas covered by this data base:

- oceanography
- marine biology
- marine pollution
- ships and shipping
- geology and geophysics
- meteorology
- government and legal aspects of marine resources.

### Access:

OA is available through the DIALOG and ORBIT information retrieval systems. For information about how to access DIALOG or ORBIT, consult Appendix A. The printed version of OA is available from Data Courier Inc., 620 S. 5th Street, Louisville, Kentucky 40202, (502) 582-4111.

## OCPDB

### Scope:

The Organic Chemical Producers' Data Base (OCPDB) is a computerized data resource designed to provide data on organic chemicals that the EPA may use to analyze and assess the U.S. organic chemical industry.

OCPDB contains sales, use, and process data for over 600 commercial chemicals produced in the U.S. Data on production sites, production volumes, prices, production processes, feedstocks or raw materials, chemical intermediates, end uses, sales estimates, and chemical identification data (including Wiswesser Line Notations) have been collected from the open literature and government reports.

In addition to online data retrieval, high level software programs are available to generate inputs in a batch mode.

The OCPDB is composed only of chemical production, uses, and process related data items. However, the 600 commercial chemicals listed in the data base include the priority pollutants for which EPA is establishing water quality criteria and some of the chemicals for which EPA is establishing air regulations. Information from the open literature and government reports are included from 1976 to the present.

### Access:

This data base is currently for EPA in-house use only. Prospective users may contact the following individual for access:

Mark Stutsman
Organic and Inorganic Chemicals and Products Branch
U.S. Environmental Protection Agency
26 West Saint Clair Street
Cincinnati, OH 45268
Telephone: (513) 684-7517.

## OHM-TADS

### Scope:

The Oil and Hazardous Materials Technical Assistance Data System (OHM-TADS) is designed to include all information pertinent to spill response efforts related to any material designated as an oil or hazardous material. As such, it includes a wide variety of physical, chemical, biological, toxicological, and commercial data.

OHM-TADS is an automated information retrieval file designated to facilitate rapid retrieval of information in up to 126 fields on about 1,100 oil and hazardous substances. Data files were constructed in such a manner that a systematic query program could prove of great value, both for online response to spill incidents and for summary evaluation relating to enforcement and research activities. The file is updated continuously.

The primary function of the files is to provide immediate feedback of information on hazardous substances to spill response team personnel and other emergency action groups. Individual segments contain both numerical data and interpretive comments. These can serve as a background for decisionmaking and provide guidelines to initiate corrective action. The file also contains personal protection data for emergency response personnel and other individuals exposed to hazardous substances.

OHM-TADS is also very useful as a means of identifying chemical substances from their gross properties--such as smell and color--and it is used in this way in connection with emergency response efforts to chemical spills. As an example, a chemical leaking from a battery, corroding a zinc floor, and leaving a yellow deposit could be tentatively identified from these three observations as mercuric sulfate, and some of the hazardous properties of this material could be printed out in order to help the spill response team with their attempts to deal safely with this chemical spill.

### Access:

OHM-TADS is available through the CIS information retrieval system. Consult Appendix A.

## PAPERCHEM

### Scope:

PAPERCHEM data base is produced by the Institute of Paper Chemistry and corresponds to the publication, Abstract Bulletin of the Institute of Paper Chemistry. It covers the scientific and technical literature of pulp, paper, and board-manufacturing and utilizing industries. Areas covered include:

| | |
|---|---|
| o Engineering and process control | o Technologies and Practices |
| o Wood Chemistry | o Raw Materials |
| o Theoretical Principles | o Products |
| o Forestry and Silviculture | |

Source documents include about 1,000 periodicals published in over twenty languages, patent gazettes of six major countries, symposium proceedings, and selected secondary sources. PAPERCHEM is updated eleven times per year.

### Access:

PAPERCHEM is available through the ORBIT information retrieval system. Consult Appendix A.

## PDSM

### Scope:

Powder Diffraction Search Match (PDSM) is designed to search the data collected by the Joint Committee on Powder Diffraction Standards (JCPDS). Experimentally determined patterns can be compared to the data base using d-spacings and intensities. The system takes into account possible mixtures and indicates how many lines are matched for each component. The data base includes organics, inorganics, minerals, and alloys. The PDSM is updated quarterly.

### Access:

PDSM is available through the Chemical Information System (CIS). Consult Appendix A.

## PESTDOC

### Scope:

Pest Control Literature Documentation (PESTDOC) is a bibliographic data base which relates to both agriculture and the environment in that it covers the worldwide scientific literature on pesticides, herbicides, and plant protection. It is designed specifically to meet the requirements of manufacturers of agricultural chemicals other than fertilizers. It covers:

- Analytical Techniques
- Biology
- Chemistry
- Toxicology
- Insecticides
- Herbicides
- Fungicides
- Molluscides
- Rodenticides

PESTDOC-II is a subset file which covers a number of annual conference proceedings not covered in PESTDOC.

PESTDOC bibliographic data are obtained entirely from journal articles; whereas data in PESTDOC-II are obtained from government reports, monographs, published proceedings, theses, and papers presented at conferences. The files are updated quarterly.

### Access:

PESTDOC is available through the ORBIT information retrieval system. Consult Appendix A.

# PHS-149

## Scope:

The Survey of Componds Which Have Been Tested for Carcinogenic Activity (Public Health Service Publication 149 (PHS-149)) is a series of eight books with data extracts from the scientific literature regarding experimental animal testing of chemical compounds. The animals were treated with various chemicals and examined for tumors (neoplasms) 30 days or more after initial treatment. Test Protocols and results are given, but no critical evaluation of carcinogencity is provided. The eight volumes cover the literature from the earliest carcinogencity testing, pre-1947 to 1973, and the 1978 literature. They include more than 4,000 compounds.

The books are arranged by generic chemical structural classes. Within each class, individual entries are arranged by preferred chemical name. Each entry reports data on the chemical tested, experimental animals, materials, administration protocol, tumors evidenced, and references to the literature where the test was reported.

Testing entries are indexed by the author of the article (in most cases the principal investigator), chemical name, route of administration, site of administration, animals species, tumor site, and vehicle. Cumulative indices for the entire series, included in each edition, provide cumulative bibliography, indices for compound name, Chemical Abstracts Service (CAS) registry number, molecular formula, and Wiswesser Line Notation (WLN).

Entries for animal tests, in which more than one test compound was administered, appear in the test section for each compound. Data from studies in which tumors were purposely induced by known carcinogens as baseline data are not included.

Structure and nomenclature data for substances in PHS-149 are referenced by and searchable in the Structural and Nomenclature Search System (SANSS) component of the EPA/NIH Chemical Information System (CIS).

## Access:

The PHS-149 is sponsored by the National Cancer Institute. The contact point is:

National Cancer Institute
Landow Building, Room C337
7910 Woodmont Avenue
Bethesda, Maryland 20014
Dr. Herman F. Kraybill, Scientific Coordinator
for Environmental Cancer
(301) 496-1625

Copies of the books may be purchased through:

Superintendent of Documents
U.S. Government Printing Office
North Capitol Street, N.W.
Washington, D.C. 20402
(202) 783-3238

## PIRA

### Scope:

PIRA is the online composite of four separate printed publications: Paper and Board Abstracts, Printing Abstracts, Packaging Abstracts, and Management and Marketing Abstracts. The first three provide abstracts of industry-specific scientific, technical, marketing, and management literature; the last covers the general literature and is not directed to any particular industry. PIRA is produced by The Research Association for the Paper and Board, Printing and Packaging Industries and is worldwide in coverage.

The data base is divided into four principal subject areas: paper and board, printing, packaging, and management and marketing. A representative list of subjects is given below:

- Adhesives
- Advertising
- Binding
- Composition
- Education and Training
- Finishing
- Food Packaging
- Forecasting
- Graphic Arts
- Industrial Relations Management
- Inks
- Materials
- Machinery
- Occupational Safety
- Photography
- Plastics Packaging
- Pollution
- Production
- Pulps
- Recycling
- Retailing
- Testing

Sources include over 600 periodicals, as well as books, pamphlets, standards, specifications, legislation, translations, conference papers, research reports, and trade literature.

### Access:

PIRA is available through the DIALOG information retrieval system. Consult Appendix A.

# POISINDEX

## Scope:

POISINDEX is designed to provide information for the emergency identification and therapeutic management of acute poisoning. Information in POISINDEX has been obtained from manufacturers, retailers, and published data. All Management file entries are edited and reviewed by a review board composed of practicing toxicologists, physicians, and pharmacists. It is available as a set of 140 microfiche.

The data base is organized in accordance with six subset files:

- Management
- Product/Ingredient
- Plants
- Snakes
- Mushrooms
- Tablet and Capsule Identification.

The Product/Ingredient file has over 160,000 alphabetical entries for chemical names, commercial brand and trade names, generic and common misspellings for commercially, publicly accessible products, chemical substances, living organisms, and biological agents. Each Product/Ingredient entry contains information regarding the composition or formulation of the substance and references to the Management file for suggested treatment. Management file entries contain detailed information on clinical effects, treatment, available forms, pharmacology, ranges of toxicity, laboratory methodologies and values, and references for specific types of toxicity. The Table and Capsule Identification file lists drug capsules and tablets by the imprint code (numbers and letters), colors, and other identifying characteristics. Ingredient compositions and references to Management entries are given.

POISINDEX also has indexes for the identification of plants, snakes and snake bites, and mushrooms.

All index references include microfiche number and frame numbers for the referenced item. No cross-references are used in the indices. Each entry contains all available information.

## Access:

POISINDEX is generated by the Rocky Mountain Poison Control Center, Denver, Colorado, and is disseminated by Micromedex, Inc., Englewood, Colorado, on a subscription basis. It is available only in microfiche form. POISINDEX complete files are regenerated and reissued quarterly to ensure currency. It is available from:

Micromedex, Inc.
2750 South Shoshone Street
Englewood, Colorado 80110
(303) 781-7813

# POLLUTION ABSTRACTS

## Scope:

POLLUTION ABSTRACTS, corresponding to the hardcopy *Pollution Abstracts*, is a leading resource for references to environmentally related literature on pollution, its sources, and its control.

The following subjects are covered by the POLLUTION ABSTRACTS data base:

- Air Pollution
- Environmental Quality
- Noise Pollution
- Pesticides
- Radiation
- Solid Wastes
- Water Pollution.

## Access:

POLLUTION ABSTRACTS is available through the DIALOG and ORBIT information retrieval systems. For information about how to access DIALOG and ORBIT, consult Appendix A.

# PTS F&S INDEX

## Scope:

PTS F&S INDEX (Predicasts Terminal System/Funk & Scott Index) indexes all significant information appearing in over 2,500 newspapers, business magazines, government reports, trade journals, bank letters, and special reports throughout the world. The PTS F&S INDEX data base provides information on acquisitions, capacities, end uses, environment, foreign trade, market data, new products, production, regulations, and technology. The data base provides a very brief description of each item indexed. Products and services covered include:

- Agriculture, Forestry, Fisheries
- Apparel and Related Products
- Chemicals and Allied Products
- Communications
- Construction
- Electric/Electronic Machinery and Equipment
- Financial Services
- Food and Kindred Products
- Furniture
- Governments
- Instruments and Related Products
- Leather and Products
- Medical and Health Services
- Membership Organizations
- Metals and Fabricated Metal Products
- Mining and Extractive Industries
- Ordnance
- Other Kinds of Manufacturing
- Paper and Allied Products
- Petroleum and Energy Products
- Printing and Publishing
- Regional Trade and International Groups
- Rubber and Allied Products
- Sciences
- Service Industries
- Stone, Clay and Glass Products
- Textile Mill Products
- Tobacco Products
- Transportation
- Transport Equipment
- Wholesale and Retail Trade
- Wood and Wood Products

## Access:

PTS F&S INDEX is available through the DIALOG, BRS, and DATA-STAR (available only in Europe) information retrieval systems. Consult Appendix A.

## PTS-PROMT

### Scope:

PTS-PROMPT (Predicasts Terminal System/Predicasts Overview of Markets and Technology) abstracts all significant information appearing in 1,500 newspapers, business magazines, government reports, trade journals, bank letters, and special reports throught the world. The PTS-PROMT data base provides information on acquisitions, capacities, end uses, environment, international trade, market data, new products, production, regulations, and technology. The data base provides a complete summary of each item indexed. Products and services covered include:

- Agriculture, Forestry, Fisheries
- Apparel and Related Products
- Chemical and Allied Products
- Communications
- Construction
- Electric/Electronic Machinery and Equipment
- Financial Services
- Food and Kindred Products
- Furniture
- Governments
- Instruments and Related Products
- Leather and Products
- Medical and Health Services
- Membership Organizations
- Metals and Fabricated Metal Products
- Mining and Extractive Industries
- Ordnance
- Other Kinds of Manufacturing
- Paper and Allied Products
- Petroleum and Energy Products
- Printing and Publishing
- Regional Trade and International Groups
- Rubber and Allied Products
- Sciences
- Service Industries
- Stone, Clay and Glass Products
- Textile Mill Products
- Tobacco Products
- Transportation
- Transport Equipment
- Wholesale and Retail Trade
- Wood and Wood Products

### Access:

PTS-PROMT is available through the DIALOG, BRS, and DATA-STAR (available only in Europe) information retrieval systems. Consult Appendix A.

## RAPRA ABSTRACTS

### Scope:

RAPRA ABSTRACTS (Rubber and Plastics Research Association Abstracts), consists of abstracts and citations of commercial, technical, and research aspects of the rubber, and plastics industry. It provides information on:

- Synthesis and Polymerization
- Natural Rubber Cultivation
- Raw Materials and Monomers
- Compounding Ingredients
- Engineering
- Patents
- Economics
- Hazards
- Toxicity
- Industrial Hygiene
- Analytical Techniques

Bibliographic data are obtained monthly from journal articles, government reports, patents monographs, published proceedings, theses, papers presented at conferences, manufacturers catalogues, and trade literature.

### Access:

RAPRA ABSTRACTS is available through the DIALOG information retrieval system. Consult Appendix A.

# RTECS

## Scope:

The Registry of Toxic Effects of Chemical Substances (RTECS) is a file containing chemical toxicity data with source document references and citations to major standards, reviews, and regulations for more than 50,000 chemical substances for which toxicity data or reviews have appeared in the publicly available literature, irrespective of publication date. For any chemical, only the most toxic values are retained in this routinely updated computer-produced file. The generation of the RTECS data file is sponsored by the National Institute for Occupational Safety and Health (NIOSH). These data are available as a handbook and as on-line data bases through the NLM and the CIS information retrieval systems.

An updated version of RTECS is published annually in paperbound book form and issued quarterly on a subcription basis in microfiche by the U.S. Government Printing Office (GPO). The book was formerly published as the Toxic Substances List. Volume I contains a unified index of chemical synonyms and substance prime names which references the main toxicity data entries in Volume II. Each record in Volume II contains: chemical identification data; Wiswesser Line Notations; toxicity data specifying species, route of exposure; toxic effects and dosage data for toxicity data; citations to major Federal standards and regulations; major toxicity reviews, such as the International Agency for Research on Cancer reviews of carcinogenicity; NIOSH Criteria Documents; and the status of chemicals in the National Cancer Institute's carcinogenesis bioassay testing program.

The RTECS/CIS file is the version of the RTECS file implemented online as part of the CIS. Specific chemical records may be located using the CAS Registry Number, NIOSH Number, toxicity data with source document citations, CAS 8th Collective Index nomenclature, and molecular formula.

Chemical structure and nomenclature information for substances in the RTECS file are searchable within the Structure and Nomenclature Search System (SANSS) component of the CIS information retrieval system. Search (statement) results from SANSS may be combined with the search results from searches of the RTECS file itself. In addition, CAS Registry Numbers or RTECS accession numbers retrieved from SANSS may be used to retrieve, print, or display specifics RTECS records.

RTECS/NLM file is disseminated by the Medlars Management Group, NLM. The Toxicology Information Program of the NLM is responsible for implementation, maintenance, and promotion of RTECS/NLM. This file is essentially the same as RTECS/CIS.

Access:

RTECS is available through both the CIS and the NLM MEDLARS information retrieval systems. Consult Appendix A. The printed version is available from the U.S. Government Printing Office, Washington, D.C. 20402.

# SAFETY

## Scope:

This data base corresponds to Safety Science Abstract Journal. It covers general safety, environmental and ecological safety, medical safety, transportation safety, and industrial and occupational safety. Safety records are obtained from international sources including periodicals, government reports, conference proceedings, books, dissertations, and patents.

## Access:

SAFETY is available through the ORBIT information retrieval system. For information about how to access ORBIT, consult Appendix A.

## SANSS

### Scope:

The Structur and Nomenclature Search System (SANSS) is the heart of the NIH-EPA Chemical Information System (CIS). SANSS provides an online interactive capability for searching chemical substance data bases in order to satisfy user needs for various structural and nonstructural chemical properties. SANSS provides structural and nomenclature information for over 110,000 chemical substances found in any CIS component file. SANSS permits the user to generate, modify, and/or display two-dimensional chemical structure diagrams of retrieved compounds. Structures may be used as search criteria to search the SANSS unified data base for compounds having desired structural fragments. Once this search has been performed, iterative atom-by-atom, bond-by-bond substructure searches may be executed. Searching may also be performed using terms or fragments derived from nomenclature and molecular formulas, ring structur data, CIS fragment codes, number of atoms in a molecule, and molecular weights.

Output may include structural diagrams, Chemical Abstracts Service (CAS) Registry numbers, chemical nomenclature and synonyms, and a list of CIS files having information concerning the compound in question.

SANSS has several processing capabilities based on the use of Connection Tables to represent chemicals' two-dimensional structural characteristics. A connection table is a matrix listing of a molecule's nodes (numbered atoms), atomic symbol for that node, and the numbers of the other nodes to which it is interconnected. SANSS relies on encoded connection tables as the data base upon which various algorithms are applied to perform structure display and substructure searching.

Additionally, several search packages are available to the user. These are not processing capabilities; they must be user selected and are invoked in SANSS to search the user-specified file in the Unified Data Base System.

The user may also create and combine a temporary file containing references to those substances in the data base satisfying some query requirement or a combination of requirements.

### Access:

SANSS is available through the Chemical Information System (CIS). for information about how to access CIS, consult Appendix A.

## SCISEARCH

### Scope:

SCISEARCH is a multidisciplinary index to the literature of science and technology prepared by the Institue for Scientific Information (ISI), Philadelphia, Pennsylvania. It contains all the records published in Science Citation Index (SCI) and additional records from the Current Contents series of publications that are not included in the printed version of SCI. SCISEARCH is distinguished by two important and unique characteristics. First, journals indexed are carefully selected on the basis of several criteria, including citation analysis, resulting in the inclusion of 90 percent of the world's significant scientific and technical literature. Second, citation indexing is provided, which allows retrieval of newly published articles through the subject relationships established by an author's reference to prior articles.

Subjects include the following areas:

- Acoustics
- Aeronautics
- Agriculture
- Astrophysics
- Behavioral Sciences
- Biochemistry
- Biology
- Biophysics
- Botany
- Cardiology
- Chemistry
- Dermatology
- Electronics
- Engineering
- Environmental Science
- Geology
- Mathematics
- Medicine
- Microbiology
- Pharmacology
- Physics
- Physiology
- Psychiatry
- Psychology
- Surgery
- Virology
- Zoology

### Access:

SCISEARCH is available through the DIALOG information retrieval system. For information on DIALOG, consult Appendix A.

# SPHERE

## Access:

The Scientific Parameters for Health and Environment, Retrieval and Estimation (SPHERE) system is an on-line system being developed by the Environmental Protection Agency, Office of Toxic Substances to support the risk assessment of chemicals under sections 4,5, and 6 of the Toxic Substances Control Act (TSCA).

SPHERE will provide its users with a cross-section of the health and environmental data associated with new or existing chemicals to assist in the assessments of risks associated with their production and use.

SPHERE will include data from four main areas:

- o Physical-Chemical properties--these include general physical and chemical properties such as molecular weight, properties associated with intermolecular forces such as vapor pressure, chemical equilibrium and solubility, thermodynamic and photometric properties, and flammability characteristics;
- o Health Effects--these consist of data relating to human health including acute toxicity, skin sensitization, chronic toxicity, mutagenicity, oncogenicity, teratogenicity, and reproductive effects;
- o Environmental Effects--these include the effects of a substance on organisms other than humans or observed in organisms not used as models for humans (for example acute toxicity to plants, vertebrates and invertebrates, and bioaccumulation); and
- o Environmental Fate--these include information on the transport and transformation of a substance in the environment and experimental results from laboratory tests especially designed to predict the concentration of a substance in the environment.

The current SPHERE system covers two data sources:

- o AQUIRE, a data bank of aquatic toxicity data; and
- o DERMAL, a data bank of dermal absorption data.

Each of these data sources is summarized below. Each data source will generate one or more scientific parameter types. The data bases were designed to handle data at the level of the individual assay or study, and thus, they differ from bibliographic data bases such as TOXLINE that are organized at the level of the paper.

The current SPHERE system covers three parameters:

- o Aquatic Effects--describing experiments on aquatic organisms and derived from the AQUIRE data source;
- o Toxic Effects--describing experiements on laboratory animals and humans and derived from the Dermal Absorption Data Source; and

- Absorption, Distribution, Metabolism, and Excretion (ADME)--including pharmacokinetics and metabolism studies. ADME data come from the Dermal Absorption Data Source.

Summary of the AQUIRE Data Source:

The data base covers the worldwide literature, for the period 1970 to 1981 relating to the toxicity of chemicals to aquatic organisms. Test with freshwater and saltwater organisms (except bacteria) are included in the data bank. Acute, chronic, bioaccumulation, and sublethal effects are covered. Each study is reviewed and a review code entered into the system. The data bank will eventually contain some 30-50,000 aquatic toxicity measurements on 2,000 to 4,000 unique chemicals. Chemicals excluded are oils (i.e., complex petroleum based mixtures and complex effluents).

The Aquatic Effects (AQ) parameter includes details of the chemical tested, study purpose, study quality, organisms, exposure time and type, extent of controls, test conditions including temperature, hardness, alkalinity, dissolved oxygen, pH and others, effect endpoints, concentration and specific reports reported.

Summary of the Dermal Absorption Data Source:

The data base covers the worldwide literature for the period of 1970 to 1981 relating to the effect of dermal absorption of chemicals. The data bank includes effects data (viewed as qualitative indicators of absorption) and quantitative data involving absorption, distribution, metabolism, and excretion (ADME) studies. Data on toxic effects of chemicals administered via routes other than dermal (e.g. inhalation, oral and injection) are included if they appear in articles along with dermal data. The data bank will eventually include some 8,000 dermal absorption measurements on 2,000 to 4,000 unique chemicals. Steroids and salicylates have been excluded from the data bank.

The Toxic Effects (TE) parameter includes details of the test chemical, study purpose, test organisms, test conditions, summary results, dose specific results, and other chemicals used in the test.

The Absorption, Distribution, Metabolism, and Excretion (ADME) parameter includes details of the test chemical, study purpose, test organism, test conditions, summary results, detailed results, and other chemicals described in the test. Results are presented in tabular form.

Access:

SPHERE will be available through the Chemical Information system beginning in July 1983.

## SPIN

### Scope:

SEARCHABLE PHYSICS INFORMATION NOTICES (SPIN), covers all major areas of physics and provides the most current indexing and abstracting of all major American and Russian physics and astronomy journals. Journal articles cited are from the original and translation publications of the American Institute of Physics (AIP) and its member societies, as well as from other select American journals.

SPIN covers the following major areas:

- physics
- mathematical and statistical physics
- astronomy
- astrophysics
- geophysics

### Access:

SPIN is available through the DIALOG information retrieval system. For information about how to access DIALOG, consult Appendix A.

# STANDARD AND POOR'S NEWS ONLINE

## Scope:

Standard and Poor's NEWS ONLINE is a full text file which provides coverage of financial news, commerce and trade, economics, manufacturing and production, and transportation data and financial reports on the more than 10,000 United States companies of industries in which there is any degree of public interest. Information from licensing and registration agencies to which the company reports is also included. The abstract contained in a record may be either textual or tabular in form.

Data are obtained daily from the following sources: leading newspapers; leading newswire services; releases issued by the company itself or its public relations house; all reports issued to stockholders and the regulatory bodies to which the company reports; and releases from stock exchanges and regulatory bodies.

## Access:

Standard and Poor's NEWS ONLINE is produced by the Standard and Poor's Corporation and is available through the DIALOG information retrieval system. Consult Appendix A.

## STORET

### Scope:

STORET is an acronym used to identify the computerized data base system maintained by EPA for the STOrage and RETrieval of data relating to the quality of the waterways within and contiguous to the United States. Within the STORET system, some 1,800 unique water quality parameters (a parameter is essentially the objective of a measurement such as the concentration of a particular substance in a particular medium) are defined. Approximately 80 percent of the 40 million individual observatios available within the system pertain to approximately 200 of these parameters that deal with concentrations of conventional pollutants (BOD, N, P, etc.) and metals in water. A single observation represents a measurement of a single parameter at a specific location or station at a specific time. These observations are taken from more than 200,000 unique collection points located on essentially all U.S. rivers, lakes, streams, and other waterways.

The STORET system is fully computerized; it permits users to enter observations into the data base as well as to retrieve information from the data base through remote terminals. A comprehensive range of retrieval capabilities, both in the statistical analysis of observations and the reporting of the results of the analyses, is provided by STORET. Some of these services are available in an online mode of operation; others are available in a batch mode of operation.

STORET can be used for the following purpose:

- To detect changes in pollutants that could change ambient criteria/standards.
- To help promote water quality programs by substantiating the effectiveness of other similar programs.
- To help justify budget requests for water quality programs.
- To help cut sampling costs by coordinating efforts with other organizations.
- To provide a repository for data collection efforts.
- To help identify where monitoring efforts are needed, thereby determining where funds need to be allocated.
- To help design overall programs based upon the successes of others.
- To help complete water quality management basin plans.
- To help prepare fact sheets required for permit processing.
- To detect changes in pollutants that could change existing permits.

Access:

To determine eligibility to become a STORET user, contact STORET User Assistance in Washington, D.C. (202-382-7220) or FTS (382-7220). Some of STORET's data and capabilities are available on UPGRADE.

## SURFACE COATINGS ABSTRACTS

### Scope:

The Surface Coatings Abstracts (SCA) data base provides worldwide coverage of the literature on all aspects of coatings applied to surfaces and materials. Subject areas encompassed by this data base include:

- Paints
- Varnishes
- Lacquers
- Polymers and Pigments
- Printing Inks and Recording Materials
- Adhesives
- Dyes/fluorescences
- Fire Retardants
- Resins
- Solvents
- Plasticizers
- Industrial Hygiene and Hazards
- Pollution
- Methodology and Economics

Some patents are included as sources. The SCA data base corresponds to the printed publication of the same name.

Data are obtained from journal articles, patents, monographs, published proceedings, theses, and books.

### Access:

SURFACE COATINGS ABSTRACTS is available throught the DIALOG information retrieval system. Consult Appendix A.

## SYNORG

**Scope:**

Synthetic Organic Chemicals: United States Production and Sales (SYNORG) is a single volume annual publication of the U.S. International Trade Commission. It receives data from approximately 800 producers and reports domestic commercial production and sales of synthetic organic chemicals and the raw materials from which they are made. Fifteen sections, organized by chemical classes, deal with:

- Tar and Tar Crudes
- Crude Products From Petroleum and Natural Gas for Chemical Conversion
- Cyclic Intermediates
- Dyes
- Organic Pigments
- Medicinal Chemicals
- Flavor and Perfume Materials
- Plastics and Resin Materials
- Rubber Processing Chemicals
- Elastomers
- Plasticizers
- Surface-Active Agents
- Pesticides and Related Products
- Miscellaneous End-Use Chemicals and Chemical Products
- Miscellaneous Cyclic and Acyclic Chemicals

For each of these groups, production and sales figures are provided. Additional information is provided (in terms of a code) concerning the manufacturers of each individual chemical. The Commission also published monthly statistics on 95 of the most significant of these chemicals.

A companion publication entitled "Imports of Benzenoid Chemicals and Products, 19xx," is also available from the Commission. For this publication, the imported benzenoids are categorized in seven groups as follows: intermediates, finished products, dyes and pigments, medicinals and pharmaceuticals, flavor and perfume, and all other finished products. Tables are provided for various groups showing imported quantities by chemical and invoice values by country of origin, etc.

Through 1975, data were reported by producers for only those items where the volume of production exceeded 1,000 pounds or where the value of sales exceeded $1,000. Begining in 1976, these limits were raised to 5,000 pounds and $5,000 for most chemicals and 50,000 pounds and $50,000 for plastics and resin materials; the 1,000 pounds and $1,000 limits were retained for organic pigments, medicinal chemicals, flavor and perfume materials, rubber processing chemicals, and elastomers.

**Access:**

SYNORG is available through the U.S. Government Printing Office.

## TDB

### Scope:

The TDB (Toxicology Data Bank) is an on-line interactive retrieval system that provides reviewed information, where available, on over 3,500 chemical substances in the areas of toxicity hazards, pharmacology, chemical identification, physical properties, environmental factors, manufacturing, shipping, usage, and other related information. Specific data elements include CAS Registry Number, synonyms, molecular formula and weight, human and animal toxicity, antidote, and treatment. Information has been extracted from some 80 reference textbooks, handbooks, monographs, and criteria documents. The data have been reviewed by a peer review group of scientists from The National Institutes' of Health Division of Research Grants Toxicology Study Section. This section is comprised of pharmacologists, toxicologists, and chemists. An output record may contain data values or detailed textual information.

TDB is searchable with free text terms and keywords.

### Access:

TDB is available online through the NLM MEDLARS information retrieval system. Consult Appendix A.

## TDMS

Scope:

The Toxicology Data Management Systems (TDMS) will maintain unprocessed data from toxicological experiments as well as serve as a management and collection agent for ongoing experiments. TDMS will allow users to:

- Query the status of ongoing experiments
- Examine raw data from experiments
- Examine the protocols being used in different experiments
- Determine if a given chemical is being experimented upon.

The information in TDMS is available through formatted reports or through the use of the query language processor. TDMS is composed of six subsystems, each of which deals with a different aspect of experimental data or procedure:

1. Compound Management System
2. Protocol Analysis System
3. Experiment Status System
4. Experiment Information System
5. Post Experiment Information System
6. Non-Animal Data System

The Compound Management System (CMS) will collect compound information during the review process, prior to exprimental acceptance.

The Protocol Analysis System (PAS) will allow the principal investigator to specify and tailor experimental protocol and information gathering regime. The data base will contain the following information:

- Compound name and identifiers, manufacturer information, and lot test analysis

- Name, site, and contract number of contractor handling experiment

- Materials requirements

  - Feed (manufacturer, supplier, quantities)
  - Animal husbandry (bedding, environment, etc.)

- Number, sex, species, and strain of animals on experiment

- Animal room protocols, including:

  - Feeding schedules
  - Dosing methods and amounts
  - Required data (clinical signs, weight, blood samples, etc.)
  - Sacrifice schedules

- Gross pathology protocols, e.g., what organs to look at and what abnormalities to look for

- Microscopic pathology protocols.

The Experiment Status System (ESS) will allow review of the current status of any or all parts of an experiment using preformatted reports.

The Experiment Information System (EIS) will handle all animal information collected while on experiment as defined in the experimental protocol. This includes:

- Time series of animal weights
- Time series of clinical signs
- Other recurrent measurements, observations, and good laboratory practice information.

The Post Experiment Information System (PEIS) will handle the information generated by gross pathological and microscopic pathological examination of the animals on experiment. The details of the information depend on the protocol, but some typical information is:

- Gross Pathology
    - Organ Weights
    - Gross organ observations (size, color, shape, consistency, etc.)
    - Good laboratory practices data (balance used, who did weighing, etc.)
- Microscopic Pathology
    - Information on each organ (normal, missing, present but not looked at, etc.)
    - Pathological findings (grading, staging, typing, counting, tumor sites, etc.)
    - Slide information
    - Good laboratory practice (GLP's) information.

The Non-Animal Data System (NADS) will collect environmental (chemical and biological) monitoring information during experiments.

Access:

TDMS is under consideration as a component data base of the Chemical Substances Information Network (CSIN).

# TED

## Scope:

The Toxics Economic Data Base System (TED) has been developed for the Regulatory Impacts Branch (RIB) of the EPA Office of Toxic Substances/Economics and Technology Division to provide it with economic information about a wide variety of chemicals. The sytem is designed to be used on-line by EPA staff and contractors. Emphasis in TED is on chemicals relevant to sections 4,5 and 6 of TSCA, whereas other chemical data bases are generally concerned with the large volume "commodity" chemicals. TED currently includes over 600 chemicals and will eventually cover about 1000 commercially produced chemicals.

The OCPDB data base developed for the EPA-IERL was used as the data base structure for TED. The OCPDB contains some economic information as well as other data on the toxicity of organic chemicals and information concerning chemical plants.

Information from the OCPDB relevant for RIB purposes has been incorporated into TED and is labeled as such. These data are currently being replaced by verified and referenced information on a chemical by chemical basis. One of the unique featues of TED is that the information contained in the system is fully documented, allowing the user to assess the integrity of the data.

TED runs in System 2000, a hierarchical data base management system and is composed of five modules: Synonyms, Direct Uses, Indirect Uses; Production/Trade, and Producers. Briefly:

- o Direct Uses covers the immediate uses of the chemical;
- o Indirect Uses covers the final product applications for chemicals that are used as chemical intermediates;
- o Production/Trade includes time-series data since 1970 on domestic production, sales, prices, imports and exports;
- o Producers lists all current producers and their plants, as well as the parent companies of the producers and the processes used at each plant, where available.

## Access:

TED is available by contacting:

Dennis A. Leaf
Economics and Technology Division (TS-779)
Office of Toxic Substances
U.S. Environmental Protection Agency
Washington, D.C. 20460
Telephone: (202) 382-3716

## TITUS

### Scope:

TITUS provides worldwide coverage of the textile and allied industries. The following aspects of this subject are included in the data base:

- matter and materials for the textile and allied industries (their structure, characteristics, and production);
- processes and machines used for the production of fibrous materials, fibers, yarns, threads, woven fabrics, knitted fabrics, non-woven fabrics, and others;
- processes, machines, and products for textile finishing such as bleaching, dyeing, printing, and other finishing treatments;
- processes, machines and products for washing, laundering, and dry cleaning;
- making up and related machine or devices;
- processes and machines for industrial fabrics and related products such as tirecords, belts, filters, carpets, etc.
- analysis and tests on textile materials and products, including testing equipment;
- textile engineering;
- textile industrial management;
- environmental protection and pollution control related to the textile industry and products;
- health effects of textiles; and
- regulations related to textiles.

The TITUS data base is produced by the Institut Textile de France.

### Access:

TITUS is available through the ORBIT information retrieval system. Consult Appendix A. TITUS is also available from:

Questel, Inc.
1625 I Street, N.W.
Washington, D.C. 20006
(202) 296-1604

## TOXLINE/TOXBACK

Scope:

TOXLINE (Toxicology Information OnLine) is a data base containing reference to published toxicity studies, effects of environmental chemicals and pollutants, actions and adverse reactions of drugs, and related analytical methodology. TOXLINE is available online as part of the National Library of Medicine's MEDLARS system of data bases.

Citations on a given subject may be retrieved from TOXLINE by entering the desired free text terms as they appear in titles, keywords, and abstracts of articles. Chemical substances can be searched by entering their corresponding Chemical Abstracts Service (CAS) Registry Numbers, trade names or synonyms, after consulting the CHEMLINE file. There is no controlled vocabulary governing the inclusion or exclusion of terms in TOXLINE. Terms may be entered singly or combined by means of the Boolean operators AND, OR and AND NOT. Searches may be limited to specific years of publication, secondary sources, or authors, since these are all searchable elements. Citations and abstracts may be printed online at the user's terminal, or offline and mailed to the user from NLM. Users may select a print format varying from a brief identification of author(s), title, and source to a complete listing of the bibliographic record, including the abstract.

As of May 1979, the online file contained approximately 580,000 records, material published in secondary sources from 1974 forward. In TOXLINE are all of the EMIC and ETIC items, regardless of time coverage. Older information, approximately 380,000 records, is in TOXBACK (the TOXLINE backfile available through OFFSEARCH only). THe HAYS, HAPAB, and TERA subfiles are only available in TOXBACK.

Data Files in TOXLINE/TOXBACK include:

- Chemical-Biological Activities (CBAC)
- Radiation Biochemistry
- Sewage and Wastes
- Toxicity Bibliography (TOXBIB)
- Abstracts on Health Effects of Environmental Pollutants (HEEP)
- International Pharmaceutical Abstracts (IPA)
- Pesticide Abstracts (PESTAB)
- Environmental Mutagen Information Center file (EMIC)
- Environmental Teratology Information Center file (ETIC)
- Toxic Materials Information Center file (TMIC)
- Teratology (TERA)
- Hayes Pesticide Collection
- Toxicology/Epidemiology Research Projects (RPROJ)

Access:

TOXLINE is available through the MEDLARS bibliographic retrieval service from the National Library of Medicine (NLM). Both TOXLINE and TOXBACK are accessible at NLM only. For further information, call NLM at (800) 638-8480 or (301) 496-6193.

# TOX-TIPS

## Scope:

TOX-TIPS (Toxicology Testing in Progress) is a monthly publication sponsored by the Environmental Information Subcommittee of the Department of Health and Human Services Committee to Coordinate Environmental and Related Programs and is produced under the direction of the Toxicology Information Program at the NLM.

TOX-TIPS is a product of the combined efforts of industrial, governmental, and academic organizations reporting on initiation of testing projects and epidemiology studies to determine toxicity.

The emphasis of the prgram is to provide an information exchange mechanism to avoid inadvertent duplication of expensive tests. Publication preference is given to long-term studies, although other projects are reported. For this publication, a long-term test is defined as one where the duration of the study is at least 10 percent of the animals's life expectancy. Hence, projects reporting 90-day and longer animal studies are published.

In TOX-TIPS, project descriptions are fully indexed by study parameters including chemical name and CAS Registry Number. Indices by supporting and performing organizations and principal investigators are also included; all indices are cumulated quarterly. References to completed studies, including NTP Bioassay Program reports, are accepted for index entry. In addition, TOX-TIPS carries selected references to articles from the recent literature on work related to the reported project. These bibliographic citations are retrieved from searches, conducted by NLM staff, of the NLM MEDLARS data bases.

## Access:

TOX-TIPS may be ordered from:

National Technical Information Service (NTIS)
5285 Port Royal Road
Springfield, VA 22161
Telephone: (703) 487-4650.

## TRIS ABSTRACTS

### Scope:

Transportation Research Information Service (TRIS) Abstracts provide transportation research information in air, highway, rail and maritime transport; mass transit; and other transportation modes. Among the transportaion research information services contributing to TRIS are the Highway Research Information Service (HRIS), the Maritime Research Information Service (MRIS), the Railroad Information Service (RRIS), the Air Transportion Research Service (ATRIS), and the Urban Mass Transportation Research Information Service (UMTRIS).

TRIS ABSTRACTS cover the following subjects:

- Regulations and legislation;
- Energy, environment and safety;
- Materials, design, construction and maintenance technology;
- Operations, traffic control, and communicaton.

### Access:

TRIS ABSTRACTS are available through the DIALOG information retrieval system. Consult Appendix A.

# TULSA

## Scope:

TULSA is the on-line version of Petroleum Abstracts. Its coverage includes literature and patents related to the exploration, production, and development of oil and natural gas. Specifically, the data base contains citations about:

- Well Logging
- Well Drilling
- Well Completion and Servicing
- Petroleum Geology
- Exploration Geophysics & Geochemistry
- Oil and Gas Production
- Reservoir Studies and Recovery Methods
- Pollution and Ecology
- Alternative Fuels
- Transportation and Storage
- Supplemental Technology

Abstracts are available on all citations dating back to 1978. Additionally, abstracts are available in the subject area of enhanced recovery of oil, for the years 1965 to 1978.

TULSA also contains a small file on the exploration of certain mineral commodities, with citations dating back to 1978.

## Access:

TULSA is available through the ORBIT information retrieval system. Consult Appendix A.

# UPGRADE

Scope:

UPGRADE (User Prompted Graphic Data Evaluation) is a system for analyzing data about the environment, natural resources, and health effects.

The UPGRADE System makes available to the user different types of data from many source. These sources are primarily government agencies with data bases or programs supplying data useful to environmental analysis. UPGRADE provides the means of putting together these various data types to produce integrated analyses or assessments.

The following data bases are available in UPGRADE, including some of the subsets that have been defined within these data bases:

- o STORET (Water Quality) - 1,800 water quality parameters from 200,000 collection points, over 40 million total observations. Most observations are for the 200 most important water quality parameters.
  - Major Rivers - general water quality for 12 major rivers.
  - Municipal Sanitary - dissolved oxygen, stream flow, bacteria, ammonia, etc. at upstream and downstream locations from 300 major U.S. cities.
  - Pesticides - USGS measurements of 30 water column and sediment pesticide parameters.
  - Phenols - measurements of ambient phenols at 214 stations around industrial centers of the U.S.
- o NASQAN (Water Quality) - Data from the National Stream Quality Accounting Network's 450 monitoring stations in all the major subbasins in the U.S.
- o INTEGRATED DATA BASE (IDB) - correlates environmental and health data.
- o SAROAD (Air Quality) - daily maximum values of 96 parameters, back to 1970.

Some of the statistical functions available in UPGRADE include:

- o Stepwise Regression
- o General Linear Regression
- o Time-Series Analysis
- o Frequency and Cross Tabulation Tables
- o General Correlation Matrices.

All data in UPGRADE are formatted in one of two ways--time-series or cross-sectional. Time-series data are site specific and will usually contain several values (observations) for each parameter at each site. UPGRADE interfaces exist that conform to these formats of the Water Quality, Air Quality and NASQAN interfaces.

Cross-sectional data are on the level of a geographic or political unit such as the county. Observations for a parameter are statistically aggregated over time and site to yield one data value per parameter per geographic or political unit. At the present time, cross-sectional data in UPGRADE are available through the IDB at the county and state levels.

The UPGRADE components are large collections of data from which subsets of data, called datasets, are extracted to meet specific needs or to be used in specific studies. The UPGRADE User Support Group performs this data subsetting procedure for data from the STORET and SAROAD data bases. From the NASQAN and IDB data bases, users can construct datasets themselves by means of an interactive data extraction program that operates in the same manner as UPGRADE. The extracted datasets contain the data which are accessed and analyzed by UPGRADE through one of the interfaces. The user, while employing UPGRADE, does not have the interactive, on-line access to the master data bases.

## Access:

UPGRADE was designed to run on an IBM 360/370 compute equipped with TSO. TSO is IBM's acronym for "Time Sharing Option."

The UPGRADE system is no longer on-line. To acquire access to UPGRADE in the interactive mode, contact:

Mike Vail
M/A-COM Sigma Data, Inc.
5515 Security Lane
Rockville, Maryland 20852
Telephone: (301) 984-3636.

Government agencies should contact:

Charles Gish
Fish and Wildlife Service
U.S. Department of the Interior
18th and C Streets, N.W.
Washington, D.C. 20240
Telephone: (202) 653-8727.

# USP

Scope:

The Pharmacopeia of the United States of America, (USP) Twentieth Edition (USP XX), 1980, is a handbook of standard and guidelines concerning the quality of drug products. The USP is generated and disseminated by the United States Pharmacopeia Convention, Inc. This book and the National Formulary are the official drug and drug regulations compendia of the U.S.

The Pharmacopeia is organized into several sections: Monographs, General, Reagents, Tables, and an Index:

- The Monographs Section includes drug substance and dosage forms, pharmaceutical ingredients, chemical identification, usual adult and pediatric dosage, drug category, physical description, solubility, packaging, labelling and storage procedures, and standards for purity and strength, with specified analytical testing procedures.
- The General Section presents methods for various biological, microbial, chemical and physical tests and assays for drug ingredients including necessary testing equipment.
- The Reagents Section presents information on standards and preparation of reagents, indicators, and solutions used in drug testing. Buffer, colorimetric, test, and volumeric solutions are covered, as are indicator test papers.
- The Tables are a series of chemical identification tables and measurement equivalents arranged alphabetically.
- The Index is by drug, substance, and chemical names.

Additionally, each edition of the Pharmacopeia lists significant changes which have been made since the preceding edition, such as the omission of previously listed drugs.

The Committee of Revision, composed of volunteer experts from academia, the drug industry, government and private medical practice, is responsible for the complete revision of the Pharmacopeia every five years; regular issuance of "USP Comment Proof" that reports proposed revisions; and the bimonthly "Pharmacopeial Forum" that reports standard developments and official revisions.

Cumulative annual supplements to the USP are published every January. Urgent revisions are published as needed as "Interim Revision Announcements."

Access:

USP XX is available by mail order from:

Mack Publishing Company, Inc.
20th and North Hampton Streets
Easton, Pennsylvania 18042
(215) 258-6333

Copies of USP XX also may be obtained from:

United States Pharmacopeial Convention, Inc.
12601 Twinbrook Parkway
Rockville, Maryland 20852
(301) 881-0666

The Pharmacopeial Forum, a bimonthly newsletter is also available from USP Convention for a subscription fee of $94.00 per year.

## WDROP

### Scope:

WDROP (Water Distribution Register of Organic Pollutants) is a collection of data concerning the concentration of organic chemicals found in water and sediments, along with where, when, and how these chemicals were found. The data, filed in 1980, was extracted from all sources available, including the open literature, proceedings of meetings, internal government reports, and private communications. The development of this sytem is supported by the EPA-Athens Laboratory in Georgia.

WDROP currently contains information from more than 11,000 records regarding organic compounds identified in water and sediments. Compound name(s), concentration, CAS Registry Number, molecular weight and formula, Wiswesser Line Notation, sampling site and data, and reporting laboratory analytical method used are among the items which have been recorded for organic compound testing of polluted and non-polluted water body and sediment samples. Information was derived from the open literature, data previously collected by EPA, other government agencies, individual contributing researchers and laboratories, and was reviewed and validated prior to inclusion in WDROP. Periodic publication of collected data is planned. While future augmentation of the data base is planned, it has not yet been scheduled.

### Access:

WDROP is available through the CIS information retrieval system. Consult Appendix A.

## WORLD ALUMINUM ABSTRACTS

### Scope:

WORLD ALUMINUM ABSTRACTS is a bibliographic data base, which provides coverage of the world's technical literature on aluminum, ranging from ore processing (exclusive of mining) through end uses. The data base includes information abstracted from approximately 1,600 scientific and technical patents, government reports, conference proceedings, dissertations, books, and journals. All aspects of the aluminum industry aside from mining are covered:

- Aluminum industry
    - General
    - Environmental Science and Technology
- Ores
- Alumina Production and Extraction
- Melting
- Engineering Properties and Tests
- Casting
- Foundry
- Metal-working
- Fabrication
- Finishing
- Physical and Mechanical Metallurgy
- Quality Control and Tests
- End Uses

### Access:

WORLD ALUMINUM ABSTRACTS is available through the DIALOG and ESA-IRS information retrieval system. Users currently may get on-line through the ESA-IRS system by contacting:

ESA-IRS
Attention: Dr. G.A. Proca
Head of On-line Services
ESRIN
Via Galileo Galilei
Casella Posteale 64
00044 Frascati, Italy
Telephone: 011-39-6-942-2401 (from U.S.)

Users may soon be able to access ESA-IRS by contacting:

ESA
955 L'Enfant Plaza N., S.W.
Washington, D.C. 20024
Telephone: (202) 488-4158.

## WORLD TEXTILES

Scope:

WORLD TEXTILES, produced by the Shirley Institute and collaborating Research Associations Hatra and Wira, provides coverage of world literature on the science and technology of textiles and related materials; on the technical economics, production, and management of the textile industry; and on the consumption of and international trade in textile materials and products. It offers comprehensive coverage of the world's relevant textile literature as recorded from about 500 international primary and secondary sources since January, 1970.

WORLD TEXTILES covers a wide range of textile-relevant subject matter:

- Synthesis, Physics, and Chemistry of Polymers for Fibers
- Science, Technology, Properties, Products, and Utilization of Fibers, Yarns, and Fabrics
- Chemical and Mechanical Treatment of Textiles
- Technical Management and Economics of Production Processes
- Production, Consumption, and International Trade Data
- Test Methods, Quality Control, Specifications, Standards, and Legislation
- Pollution, Safety, and Health Hazards
- Utilization of Textiles in Industrial, Medical, and Other Applications

Access:

WORLD TEXTILES is available through the DIALOG information retrieval system. Consult Appendix A.

# XTAL

## Scope:

The Single Crystal Reducation and Search System (XTAL) is a search system based on the Cambridge Crystal Data Base of full structures determined by x-ray and neutron diffraction. It is published by the National Bureau of Standards and the Joint Committee on Powder Diffraction Standards. The space group, density, unit cells, and chemical types are searchable.

## Access:

XTAL is available through the Chemical Information System (CIS). Consult Appendix A.

# APPENDIX A

Access information for:

- CIS
- MEDLARS
- ORBIT
- DIALOG

## CIS

The Chemical Information System (CIS) is a collection of over 15 data bases and computer programs capable of identifying and manipulating chemical data. CIS is operated by Chemical Information Systems, Inc. for the National Institutes of Health and the Environmental Protection Agency. The following resources, some of which are described in this handbook, are available from CIS:

- OHM-TADS
- RTECS
- CNMR
- MSSS
- SANSS
- WDROP
- XTAL
- FRSS
- TSCAPP
- CHEMLAW
- CTCP
- NUCSEQ
- THERMO
- MLAB
- CHEMLAB
- CRYST
- IRSS
- CESARS
- SPHERE

This sytem also has an electronic mail capability which allows for communication between users. For additional information concerning the CIS data bases, to open an account, or to receive formal training, contact:

Chemical Information Systems, Inc.
7215 York Road
Baltimore, Maryland 21212
Telephone: (800) 368-2251 in continental
U.S. except Maryland or
(301) 321-8440.

EPA personnel should contact:

Rudolph Potenzone, Jr.
EPA
RM-218
Washington, D.C. 20460
Telephone: (202) 382-2423 or (FTS) 382-2423.

## MEDLARS

MEDLARS is the Medical Literature Analysis and Retrieval System operatd by the National Library of Medicine. The following resources, some of which are described in this handbook, are available from MEDLARS:

- CANCERLIT
- CHEMLINE
- MEDLINE
- TDB
- TOXLINE
- PDG
- POPLINE
- HEALTH PLANNING AND ADMINISTRATION
- RTECS
- CATLINE
- SERLINE
- AVLINE
- HISTLINE
- CANCERPROJ
- CLINPROT
- BIOETHICSLINE

For further information or to open an account, contact:

The National Library of Medicine
MEDLARS Management Section
8600 Rockville Pike
Bethesda, Maryland 20209
Telephone: (800) 638-8480 in continental U.S. except Maryland or
(301) 496-6193.

## ORBIT

ORBIT is a commercially operated automated information retrieval service produced by the System Development Corporation. THe ORBIT system contains more than 80 data bases with over 55 million citations, spanning the fields of chemistry, business and industry, energy and environment, science and technology, engineering, patents, government, social sciences, and others. The following data bases, some of which are described in this handbook, are available from ORBIT:

### Business & Economics

- ACCOUNTANTS
- BANKER
- CIN
- FEDEX
- INFORM
- LABORDOC
- MANAGEMENT
- MONITOR
- NDEX
- P/E NEWS
- USCGA

### Chemistry

- APILIT
- APIPAT
- CAS82/CAS77/CAS72/CAS67
- CASSI
- CHEMDEX/CHEMDEX2/CHEMDEX3
- CHEMSDI
- CIN
- CRDS
- EBIB
- EDB
- NUC/CODES
- PAPERCHEM
- PESTDOC/PEST2
- RINGDOC/RING6475
- TSCA
- USPA/USP77/USP70
- WPI/WPIL

### Engineering & Electronics

- APILIT
- APIPAT
- CAS82/CAS77/CAS72/CAS67
- COLD
- COMPENDEX
- EIMET
- ELCOM
- FOREST
- FSTA
- INSPEC/INSP6976
- NTIS/NTIS6469
- NUC/CODES
- POWER
- SAE
- SWRA
- TULSA
- USCLASS
- USPA/USP77/USP70
- WATERLIT
- WPI/WPIL64

### Energy & Environment

- APILIT
- APIPAT
- CAS82/CAS77/CAS72/CAS/67
- COMPENDEX
- EBIB
- EDB
- EIMET
- ENERGYLINE
- ENVIRONLNE
- EPIA
- GeoRef
- NTIS/NTIS6469
- P/E NEWS
- PESTDOC/PEST2
- POWER
- SWRA
- TULSA
- WATERLIT

## Government & Legislation

- ACCOUNTANTS
- ASI
- BANKER
- CIS[1]
- CRECORD
- FEDEX
- FEDREG
- MONITOR
- NDEX
- NTIS/NTIS6469
- SWRA
- USGCA
- USPSD
- VOTES

## Industry-Specific

- AGLINE
- APILIT
- APIPAT
- BANKER
- CIN
- EPIA
- FOREST
- FSTA
- PAPERCHEM
- P/E NEWS
- PESTDOC/PEST2
- POWER
- RINGDOC/RING6475
- SAE
- TULSA
- VETDOC

## Life Science

- AGLINE
- AGRICOLA/AG7078
- BIOCODES
- BIOSIS/BIO7479/BIO6973
- CASSI
- ENVIROLINE
- FSTA
- NUC/CODES
- PESTDOC/PEST2
- PIE
- PSYCINFO
- RANGE
- RINGDOC/RING6475
- SAFETY
- SPORT
- TROPAG
- USPA/USP77/USP70
- VETDOC
- WPI/WPIL

## Patents

- APIPAT
- CAB/CAB72
- CAS82/CAS77/CAS72/CAS67
- COLD
- EDB
- ELCOM
- FOREST
- FSTA
- INSP6976
- NTIS/NTIS6469
- PAPERCHEM
- SAFETY
- TULSA
- USCLASS
- USPA/USP77/USP70
- WPI/WPIL

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[1] CIS is the Congressional Information Service data base offered by ORBIT, distinct from the Chemical Information System (also CIS) described in Appendix A.

## Science & Technology

- AGLINE
- AGRICOLA/AG7078
- APILIT
- APIPAT
- BIOCODES
- BIOSIS/BIO7479/BIO6973
- CAS82/CAS77/CAS72/CAS67
- CASSI
- CHEMDEX/CHEMDEX2/CHEMDEX3
- CHEMSDI
- COMPENDEX
- EBIB
- EDB
- EIMET
- ELCOM
- ENERGYLINE
- ENVIROLINE
- EPIA
- FOREST
- FSTA
- GeoRef
- INSPEC/INSP6979
- NTIS/NTIS6469
- NUC/CODES
- PAPERCHEM
- PESTDOC/PEST2
- PIE
- POWER
- RANGE
- RINGDOC/RING6475
- SAE
- SAFETY
- SSIE
- SWRA
- TROPAG
- TSCA
- TULSA
- USCLASS
- USPA/USP77/USP70
- VETDOC
- WATERLIT
- WPI/WPIL

## Multidisciplinary

- ASI
- CIS[1]
- COMPENDEX
- CRECORD
- DBI
- FEDEX
- FEDREG
- GPO
- GRANTS
- LIBCON
- MONITOR
- NDEX
- NTIS/NTIS6469
- NUC/CODES
- PIE
- SSIE
- USGCA
- USPA/USP77/USP70
- SWRA
- WATERLIT
- WPI/WPIL

## Social Sciences

- AIS
- CIS[1]
- CRECORD
- ENVIROLINE
- ERIC
- FEDEX
- FEDREG
- GRANTS
- INFORM
- LABORDOC
- LISA
- MANAGEMENT
- PIE
- PSYCINFO
- SAFETY
- SPORT
- VOTES

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[1] CIS is the Congressional information service database offered by ORBIT. It is distinct from the Chemical Information System (also CICS) described in Appendix A.

For additional information concerning the more than 80 ORBIT data bases, to open an account, or to receive formal training, contact:

SDC Search Service
2500 Colorado Avenue
Santa Monica, CA  90406
Telephone:  (800) 421 in continental U.S. except California,
(800) 352-6689 in California or (213) 453-6194.

## DIALOG

DIALOG is a commercially operated information retrieval service produced by Lockheed Corporation. The system contains more than 150 data bases in the fields of business and finance, current affairs, social science, law, science and technology, medicine, education, energy and environment, humanities, and art. The data bases contain over 55 million records that provide bibliographic information, journal articles and conference papers, abstracts, and other types of data and information. The following data bases, some of which are described in this handbook, are available from DIALOG.

### CHEMISTRY

- CAS SEARCH
- CHEMICAL INDUSTRY NOTES
- CHEMICAL REGULATIONS AND GUIDELINES SYSTEM
- CHEMNAME
- CHEMSEARCH
- CHEMSIS
- PAPERCHEM
- TSCA INITIAL INVENTORY
- RAPRA ABSTRACTS

### AGRICULTURE AND NUTRITION

- AGRICOLA
- BIOSIS PREVIEWS
- CAB ABSTRACTS
- CRIS/USDA
- FOOD SCIENCE AND TECHNOLOGY ABSTRACTS
- FOODS ADLIBRA

### PATENTS

- CA SEARCH
- CLAIMS/CHEM
- CLAIMS/CITATION
- CLAIMS/CLASS
- CLAIMS/U.S. PATENTS
- CLAIMS/U.S. PATENT ABSTRACTS
- CLAIMS/U.S. PATENT ABSTRACTS WEEKLY
- CLAIMS/UNITERM
- INPADOC
- PATLAW

### MEDICINE AND BIOSCIENCES

- BIOSIS PREVIEWS
- CA SEARCH
- CHEMNAME
- CHEMSEARCH
- CHEMSIS
- EXCERPTA MEDICA
- HEALTH PLANNING AND ADMINISTRATION
- INTERNATIONAL PHARMACEUTICAL ABSTRACTS
- LIFE SCIENCES COLLECTION
- MEDLINE
- MENTAL HEALTH ABSTRACTS[2]
- PHARMACEUTICAL NEWS INDEX

### ENERGY AND ENVIRONMENT

- APTIC
- AQUACULTURE
- AQUALINE
- AQUATIC SCIENCE AND FISHERIES ABSTRACTS
- BIOSIS PREVIEWS
- CA SEARCH
- DOE ENERGY
- ELECTRIC POWER DATA BASE
- ENERGYLINE
- ENERGYNET
- ENVIROLINE
- ENVIRONMENTAL BIBLIOGRAPHY
- OCEANIC ABSTRACTS
- POLLUTION ABSTRACTS
- WATER RESOURCES ABSTRACTS

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[2] Forthcoming data base.

## SCIENCE AND TECHNOLOGY

- BHRA FLUID ENGINEERING
- COMPENDEX
- GEOARCHIVE
- GeoRef
- INSPEC
- INTERNATIONAL SOFTWARE DIRECTORY[2]
- ISMEC
- MATHFILE
- METEOROLOGICAL AND GEOASTROPHYSICAL ABSTRACTS
- MICROCOMPUTER INDEX[2]
- NTIS
- SCISEARCH
- SPIN
- SSIE CURRENT RESEARCH
- STANDARDS AND SPECIFICATIONS
- SUPERINDEX[2]
- TRIS
- WELDASEARCH

## BUSINESS/ECONOMICS - BIBLIOGRAPHIC

- ABI/INFORM
- ADTRACK
- CHEMICAL INDUSTRY NOTES
- ECONOMICS ABSTRACTS INTERNATIONAL
- FIND/SVP REPORTS AND STUDIES INDEX
- HARFAX INDUSTRY DATA SOURCES
- INSURANCE ABSTRACTS
- MANAGEMENT CONTENTS
- PHARMACEUTICAL NEWS INDEX
- PTS F & S INDEXES
- PTS PREDALERT
- PTS PROMT
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[2] Forthcoming data base.

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- BI/DATA TIME SERIES
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- BLS EMPLOYMENT, HOURS, AND EARNINGS
- BLS LABOR FORCE
- BLS PRODUCER PRICE INDEX
- DISCLOSURE II
- PTS INTERNATIONAL FORECASTS
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- PTS U.S. FORECASTS
- PTS U.S. TIME SERIES
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[2] Forthcoming data base.

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## ONLINE TRAINING AND PRACTICE

- ONTAP CA SEARCH
- ONTAP CHEMNAME
- ONTAP DIALINDEX
- ONTAP ERIC
- ONTAP PTS PROMT

For additional information concerning the over 150 DIALOG data bases, or to open an account, contact:

DIALOG Information Services, Inc.
Marketing Department
3640 Hillview Avenue
Palo Alto, CA 94304
Telephone: (800) 227-1927 in continental U.S. except California,
(800) 982-5838 in California or (415) 858-3785.

For formal training contact:

Telephone: (415) 858-4788.

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[2] Forthcoming data base.

# APPENDIX B

Access information for:

- Chemical Substances Information Network (CSIN)

## CSIN

The Chemical Substances Information Network (CSIN) was developed by EPA in response to the massive data requirements associated with chemical regulation, toxicological research, chemical manufacture, and related activities. The system places a valuable new tool, capable of accessing diverse types of chemical-related data, in the hands of Federal and local government agencies, scientists, educators, and public interest groups. CSIN is not another data base. It links and coordinates data from many independent chemical-related information systems that together will provide access to greater capabilities than any existing system currently supplies.

CSIN was designed to simplify chemical data acquisition and to make comprehensive data available to a broad user population. Objectives related to the fulfillment of these goals include:

- coordinating and integrating relevant Federal and private data bases;
- providing access to a variety of data bases without the need for learning various log-on and searching procedures;
- reducing the time involved in conducting a data search; and
- using the results from one information resource to forumlate queries to other resources.

Users will use the network through the public telecommunications network accessible through on-line terminals. Chemical identities will be determined through the Chemical Structure Nomenclature System (CSNS) and identified by the CAS Registry Number.

After a substance has been identified with the CSNS, over 200 data bases will be simultaneously accessible for chemical information through the following information systems:

- National Library of Medicine (NLM) MEDLARS
- System Development Corporation ORBIT
- Chemical Information System (CIS)
- Chemical Abstracts Service Online (CAS-ONLINE)
- Lockheed Information Systems/DIALOG
- Bibliographic Retrieval Systems
- U.S. EPA Chemical in Commerce Information System (CICIS)
- Coast Guard's Hazard Assessment Chemical System (HACS).

The network component systems will provide data and bibliographic and research data including:

- Nomenclature
- Properties
- Production and Commerce
- Products and Uses
- Exposure
- Health and Environmental Effects
- Studies and Research
- Regulations and Controls.

CSIN is intended to provide access to virtually every discipline relating to chemicals and their management. CSIN provides the user with the ability to identify chemicals on the basis of chemical name or structure; supplies on-line bibliographic reference to chemical, toxicological, or medical information; and provides access to its production, biological and environmental effects, and exposure to specified chemicals in commerce.

CSIN supports several types of search operations:

- direct connect mode
- enhanced direct connect mode
- script mode.

In addition, CSIN has available a variety of "utilities" to support the searches and permit users to customize CSIN's approaches.

The currently available scripts include:

- CHEMID
- TOXEFF
- MANUFACT.

CHEMID searches for chemical identification information (such as formal nomenclature, synonyms, registry numbers, and trade names). TOXEFF returns information about toxic effects of chemicals (for example, carcinogenicity and teratogenicity). MANUFACT searches for data on the production and manufacture of chemicals (including location or region of production, producer, and quantities).

Scripts are extremely flexible. They search data bases with query lists which are files containing terms that help define a specific search. Query lists instruct remote data bases as to precisely what terms should be present in the information being sought. CSIN provides a number of standard query lists designed by professional searchers. Users can use these lists or through the "utilities" of CSIN they can modify them or create their own unique lists.

In Script Mode, CSIN does the following:

- Provides a selection of data bases to search;
- Provides system query lists to include in searching;
- Provides a logical structure for the Boolean operatives used to create query lists;
- Automatically dials up and logs on to selected data bases;
- Sends all user specified queries and files;
- Searches designated data bases;
- Retrieves, stores and/or prints results;

Direct Mode links users directly to a remote system, and it requires more user interaction and knowledge. At the highest level of user involvement, CSIN merely dials and connects to the remote system. Here the user has complete free-rein with the search. Working at this level, the user must be familiar with the language and logic of the remote system.

However, the user always has some CSIN capability. At any time in a search, the user can invoke CSIN without disconnecting from the remote system. This "Enhanced" Direct Search makes available to the user a number of CSIN features that provide considerable assistance in searching data bases that do not yet have scripts written for them.

Enhanced Direct Mode features include:

- Substituting a stored file for input to the remote system (these can be the equivalent of query lists used in the Script Mode);
- Transforming a system or user file into the proper format for searching the desired data bases;
- Performing data captured into the CSIN computer;
- Editing the captured file of data.

CSIN provides a number of useful operations called "Utilities" that can be used in both Script and Direct Modes. These utilities include file and query list operations. They also include operations to "change flag setting", that are methods of tailoring user interactions with CSIN.

A file can be compared to a physical container, such as a file folder full of information. Files stored on the computer can be the result of searches of remote systems, search terms for direct mode searching, or user entered text. File operations enable users to list file names (along with their size and last date of modification), display file contents, copy files, rename, delete, print or edit files. Users may also transfer files to other users within their defined user group.

CSIN can also transform user files of information (from other systems or from the user) into the proper form for searching a wide variety of data. In Script Mode this is done automatically for those data bases available in a given script. Transforms permit a much larger number of data bases to be searched in the Enhanced Direct Mode.

CSIN provides access to a standard line-oriented editor based on the UNIX editor "XED" that can be used to modify and create files and query lists. It also merges and restructures files.

Although CSIN is still in its prototype phase, it can access and speed user searching of over 200 data bases under the following search operations:

AVAILABLE SEARCH OPERATIONS

| DATA BASES: | | SCRIPT | ENHANCED DIRECT | | | DIRECT |
|---|---|---|---|---|---|---|
| NLM: | AVLINE | | X | X | | |
| | BIOETHICS | | X | X | | |
| | CANCERLIT | X | X | X | | |
| | CANCERPROJ | | X | X | X | |
| | CATLINE | | | X | | |
| | CHEMLINE | X | X | X | | |
| | CLINPROT | | X | X | | |
| | EPILEPSY | | X | X | | |
| | HEALTH PLAN & ADMIN | | | | | X |
| | HISTLINE | | X | X | | |
| | MEDLEARN | | | X | | |
| | MEDLINE | | X | X | | |
| | MEDBACK | | X | X | | |
| | POPLINE | | X | X | | |
| | RTECS | X | X | X | | |
| | SERLINE | | | X | | |
| | TDB | X | | X | | |
| | TOXLINE | X | X | X | | |
| | TOXBACK | | X | X | | |
| SDC: | ACCOUNTANTS | | | X | X | |
| | AGRICOLA | | X | X | | |
| | APILIT | | X | X | | |
| | APIPAT | | X | X | | |
| | ASI | | X | X | | |
| | BANKER | | X | X | | |
| | BIOCODES | | X | X | | |
| | BIOSIS | X | X | X | | |
| | CAS | X | X | X | | |

| | | | | | |
|---|---|---|---|---|---|
| | CASSI | | X | X | |
| | CHEMDEX | X | X | X | |
| | CIN | X | X | X | |
| | CIS | | X | X | |
| | COLD | | X | X | |
| | COMPENDEX | | X | X | |
| | CRDS | | | X | |

## AVAILABLE SEARCH OPERATIONS

| DATA BASES: | | SCRIPT | ENHANCED | DIRECT | DIRECT |
|---|---|---|---|---|---|
| SDC: | CRECPRD | | X | X | |
| | DBI | | X | X | |
| | DOANE | | X | X | |
| | EBIB | | X | X | |
| | EDB | | X | X | |
| | ELCOM | | X | X | |
| | ENERGYLINE | | | X | X |
| | ENVIROLINE | | | X | X |
| | EPIA | | X | X | |
| | ERIC | | X | X | |
| | FEDEX | | X | X | |
| | FEDREG | | X | X | |
| | FSTA | | X | X | |
| | GEOREF | | X | X | |
| | GRANTS | | X | X | |
| | INFORM | | X | X | |
| | INSPEC | | X | X | |
| | LABORDOC | | X | X | |
| | LISA | | X | X | |
| | MANAGEMENT | | | X | X |
| | MONITOR | | X | X | |
| | NDEX | X | X | X | |
| | NTIS | X | X | X | |
| | NUC/CODES | | X | X | |
| | ORBIT | | | X | |
| | PAPERCHEM | | X | X | |
| | P/E NEWS | | X | X | |
| | PESTDOC/PESTDOCII | | | | X |
| | PIE | | X | X | |
| | POWER | | X | X | |
| | PSYCHABS | | X | X | |
| | RINGDOC | | | X | |
| | SAE | | X | X | |
| | SPORT | | X | X | |
| | SWRA | | X | X | |
| | TITUS | | X | X | |
| | TROPAG | | X | X | |
| | TSCA | X | X | X | |
| | TULSA | | X | X | |
| | USCA | | X | X | |
| | USCLASS | | | X | |
| | USPA | | X | X | |

|  |  |  |  |  |  |
|---|---|---|---|---|---|
|  | USREP |  | X | X |  |
|  | VETDOC |  |  | X |  |
|  | VOTES |  | X | X |  |
|  | WATERLIT |  | X | X |  |
|  | WPI |  |  | X |  |
|  | WPIL |  |  | X |  |
| CAS: | CAS ONLINE |  |  | X | X |
| CIS: | CHEMLAB |  |  | X |  |
|  | CLAB |  |  | X |  |
|  | CNMR |  |  | X |  |
|  | CRYST |  |  | X |  |
|  | CTCP |  |  | X |  |
|  | FRSS |  |  | X |  |
|  | GINA |  |  | X |  |
|  | IRSS |  |  | X |  |
|  | MLAB |  |  | X |  |
|  | MSSS |  |  | X |  |
|  | NMRLIT |  |  | X |  |
|  | NUCSEQ |  |  | X |  |
|  | OHM-TADS |  |  | X |  |
|  | PDSM |  |  | X |  |
|  | RTECS | X | X | X |  |
|  | SANSS | X | X | X |  |
|  | THERMO |  |  | X |  |
|  | TSCAPP |  |  | X |  |
|  | WDROP |  |  | X |  |
|  | XTAL |  |  | X |  |

Future capabilities may come from the inclusion of new utilities and scripts; data bases which contain information on Federal and state regulations regarding toxic substances; protocols for ongoing toxicology experiments; baseline pathology data on control animal strains; additional bibliographic data from various private and public sources; and user-prompted graphic data evaluation of monitoring and other numeric data.

The CSIN network administration, through its development and support contractors, also plans to initiate enhancements to CSIN in hardware through the addition of a Dual Processor to the Current DEC VAX 11/780 Configuration and completion of the CSIN microprocessor workstation task. Planned software improvements include the conversion to the new version of the Berkeley UNIX operating system and the enhancement of functionalities.

CSIN will also eventually interface with the following new systems and networks:

- Systems

  -Justice Retrieval and Inquiry System (JURIS)
  -Toxicology Data Management System (TDMS)
  -Environmental Technical Information System (ETIS)
  -Occupational Health Services HAZARDLINE

- Networks

  -ARPANET (I/O)
  -TYMNET (O)
  -CYBERNET (O)
  -EURONET (I/O)

An important goal towards which CSIN is working is to become financially self-sustaining. Currently, CSIN is supported and maintained by the Federal government. CSIN expects to realize self-sufficiency through broadening its user group and eventually requesting that users pay for some portion of their user costs.

Further information on CSIN may be obtained from;

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